

# THE AUTOMOBILE



STEARNS SIX-CYLINDER FREE-FOR-ALL WINNER, DRIVEN BY FRANK LELAND, ARRIVING AT THE TOP OF FORT GEORGE HILL.

NEW YORK CITY can supply a good hill for an auto climb, and, furthermore, the authorities of the metropolis are progressive enough to grant permission for its use. This was made apparent on Saturday last when "The Metropolitan Automobile Association" held a very successful event.

It doesn't matter in the least who are the members of this association, nor that the climb was more or less an idea of the Greater New York representatives of the Stearns car; the event was exceptionally successful and interesting and a good metropolitan advertisement for automobiles.

Invariably the buyers of automobiles in New York City, who are aware of the existence of Fort George hill, ask for a demonstration which includes this difficult incline, its three-eighths of a mile being a tortuous 10 per cent. grade. In addition to testing the capacity of the cars, the hill is also one to try the skill of the drivers, for in its length it not only has two turns to the right, with two more to the left, but where the subway crosses it at Dyckman street on an elevated structure it is badly obstructed by the iron pillars. The start of the climb was placed at Dyckman street, and the cars were given some distance to get under way. While the drivers could take their choice of going either side of the first pillar, they had to leave the second one on the right at a point where the jutting structure of the elevated was not out of the subway far enough to allow much headroom and also where the distance between the pillar and sidewalk was hardly ten feet.

Twenty-seven cars participated in the climb and the fact that of this number five were foreign machines may be taken as an indication that importers are awakening to the value of local contests. The classification of the competing cars was on the basis used in England, and recently adopted here; that is, of rating the cars according to their piston area, a car's standing being calculated by taking the square of the bore and multiplying it by the number of cylinders, the

resulting product being taken as an arbitrary rating. For instance, the rating read: "Class A, 100 and under 125," meaning square inches of total piston area.

A 35-horsepower Simplex, driven by Watson and Al. Poole, Joe Tracy's Vanderbilt Cup race helper, figured unofficially in an accident, which, however, had no serious results, though the damage was aggravated by a careless bystander in throwing a lighted match into the escaping gasoline. It brought home a realization of the danger of the narrow passage under the structure and made the other drivers more careful.

The record-breaking climb of the day was made by Frank Leland and a six-cylinder Stearns and without the necessity of touching the gear lever. The same thing was true of most of the cars, nearly all being "flights on the high." On the whole, the meet showed conclusively that a hill-climb is a drawing card in the metropolitan district, as at the start and finish, and along the entire hill, crowds of auto enthusiasts were gathered. The competition was divided into four classes, Stearns cars taking the honors in two, a Stevens-Duryea in the third, and

a Pope-Hartford in the fourth. In view of the extremely bad spot through which the cars had to pass at speed and on a turn, the times made were remarkably good; doubtless they would have been improved a little had not the accident to Watson and the Simplex caused a change in the original plan of giving the cars a flying start. This was altered so as to send them away with merely a rolling start in order that the driver might have the car well in hand when passing between the pillars.

Owing to the defection of the electrical timing apparatus at the outset, the start had to be postponed two hours and did not get under way until 3 P.M., instead of at 1 o'clock. But then things went without a hitch and things were smoothly managed.

The meet was formally opened when the word was given by Starter Wagner to F. J. Leland, of Cleveland, in a 1908 model, six-



START OF THE STEARNS "SIX."



VIEW FROM TOP OF FORT GEORGE HILL IS FAR-REACHING AND IMPRESSIVE—SIMPLEX NEARING THE FINISH LINE.

cylinder Stearns roadster. He went over the line with but a short preliminary dash from a standstill, and his time of 0:28 1-5 fully met the expectations of those who had had an opportunity to size up the car. It was simply a question of follow the road, once the danger spot had been passed. The second best time of the day was made by C. Schilp, driving a four-cylinder Stearns, who did the distance in 0:32 2-5, and to prove that there had been no error in the timing of the record-breaker it was sent over the course again. Strange to relate, it did the distance in exactly the same time to a fraction. A. J. Picard, in another Stearns, took third honors in 0:35 2-5, the necessity of dropping into a lower gear at one of the turns where the grade is said to be 13 per cent. probably costing him second honors.

In Class C, J. P. Robinson's 35-horsepower Stevens-Duryea swept the field by a good margin, and its time of 0:36 1-5 was better by several seconds than some of the performers of double its power in the preceding class. This was also true of R. T. Peckham's 35-horsepower Pennsylvania, though it required 41 1-5 seconds.

The showing of Edwin Southworth's 30-horsepower Pope-Hartford in Class D was also considerably superior to the performances of several of the cars of double its power, as it reached the top in 0:39 3-5.

The closing event of the program was for the Wyckoff, Church & Partridge Cup, limited to Stearns owners. It was taken by W. A. Tilt in 44 4-5 seconds, with R. G. Morris second in 45 4-5.

The officials were: Referee, A. R. Pardington; timers, Charles J. Dieges, H. P. Burchell, and H. T. Clinton; starter, F. J. Wagner; clerk of the course, T. J. Moore; judge, Carlton R. Mabley. The summaries:

#### CLASS A—RATING: 125 SQUARE INCHES OR OVER (PISTON AREA).

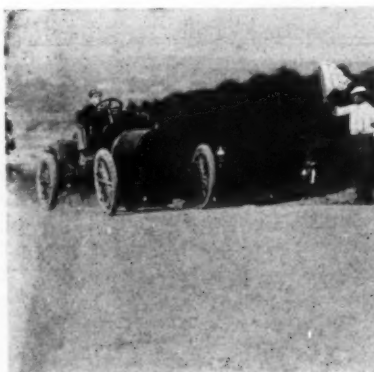
1. Stearns, 90-h.p.; Frank Leland.....28 1-5
2. De Dietrich, 60-h.p.; Wm. Manna.....40 1-5
3. Simplex, 50-h.p.; Al. Poole.....43 4-5
4. Bianchi, 70-h.p.; N. M. Powell.....44 4-5

#### CLASS B—RATING: 100 TO 125 SQ. IN.

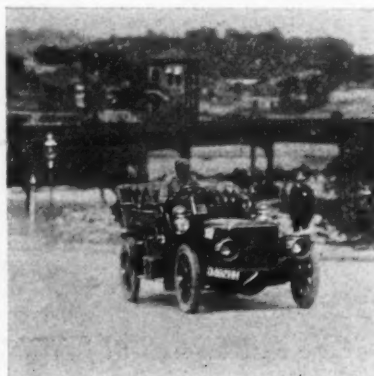
1. Stearns, 60-h.p.; C. P. E. Schilpp.....32 2-5
2. Stearns, 60-h.p.; A. J. Picard.....35 2-5
3. Stearns, 60-h.p.; W. I. Fickling.....38 1-5
4. Stearns, 60-h.p.; Arthur Warren.....39
5. Packard, 30-h.p.; W. T. Armstrong.....41 3-5



THE POPE-HARTFORD WINNER.



PILAIN, A FOREIGN PARTICIPANT.



THE STEVENS-DURYEA WINNER.

6. Bianchi, 50-h.p.; Felix Prosser.....44 1-5
7. Crawford, 50-h.p.; R. S. Crawford.....44 4-5
8. Stearns, 60-h.p.; W. A. Tilt.....45 1-5
9. Isotta-Fras, 35-h.p.; C. H. Hamilton.....46 4-5
10. Matheson, 60-h.p.; C. Singer, Jr.....47 2-5
11. De Dietrich, 40-h.p.; Arthur Roskey.....49 4-5

#### CLASS C—RATING: 80 TO 100 SQ. IN.

1. Stevens-Dur., 35-h.p.; P. J. Robinson.....36 1-5
2. Pennsylvania, 35-h.p.; R. F. Peckham.....41 1-5
3. Bayard-Clem., 30-h.p.; H. A. Vantine.....41 2-5
4. Franklin, 30-h.p.; J. H. Manning.....44 3-5
5. Pope-Toledo, 50-h.p.; Joe Judge.....45
6. Stod.-Dayton, 30-h.p.; Ray Howard.....48
7. Pope-Toledo, 50-h.p.; Joe Judge.....49 1-5

#### CLASS D—RATING: 60 TO 80 SQ. IN.

1. Pope-Hartford, 30-h.p.; J. P. Grady.....39 3-5
2. Corbin, 24-h.p.; Jack Dower.....46 3-5
3. Pope-Hartford, 24-h.p.; Phil Hines.....48 4-5

#### SPECIAL FOR STEARNS CARS—WYCKOFF, CHURCH & PARTRIDGE TROPHY.

1. Stearns, 60-h.p.; W. A. Tilt.....44 4-5
2. Stearns, 60-h.p.; R. S. Morris.....45 4-5
3. Stearns, 60-h.p.; W. I. Fickling.....48 4-5

#### CLASS FOR ELECTRICS.

1. Babcock; H. E. Wagner.....1:53 4-5

### MAINE ROADS NOT INJURED.

Judge James B. Dill, a prominent member of the A. C. A. and also of the A. A. A. Touring Board, at present enjoying his annual summer camp in Maine, writes that there is no truth in the prevalent reports that the recent cloudburst in Franklin and Somerset counties took away some bridges and interfered with the automobile route to Rangeley Lakes and from Portland, Me., to Quebec. The damage was entirely local, and the Blue Book routes are in better order than last year.

### REMAINS AN AUTOLESS EDEN.

BAR HARBOR, ME., Aug. 5.—Pulled by a horse or pushed by its owner, no automobile may travel over the forbidden roads of Eden, according to a decision of Judge B. E. Clark. In entering the village a few days ago with his 40-horsepower automobile, Fordham C. Mahony, of New York City, caused his car to be towed by a horse over the first section and on the second forbidden stretch, which was down hill, shut off power and had the machine pushed. In the legal proceedings which followed, the automobilist was fined \$1 and costs, the court finding that the spirit of the law, directed against the passage of automobiles over certain restricted territory, had been violated.

WITH the arrival of 36 "pt-pt-ting" two-wheelers at Hills Grove track at Providence, R. I., on Wednesday of last week there came to an end the sixth national endurance contest held under the auspices of the Federation of American Motorcyclists, and, be it added, one of the most strenuous and consistent tests of the motorcycle and its rider that that progressive organization has ever fostered.

Of the sixty riders who sent their entrance fees to Chairman H. J.

Wehman, many were from distant parts of the Union: Texas, Wisconsin, and the Middle West providing entries, 13 States in all being represented. Of this number 55 faced the starter at 4:30 A. M., Tuesday morning, July 29, and were sent away from Eighty-eighth street and Broadway, New York, in squads of four at one-minute intervals. The competitors were divided into two classes—the first, Class A, for single-cylinder machines, and Class B, for multi-cylinder machines, and it is interesting to note that the winner of the Diamond Medal, Bert T. Barrows, of Springfield, Mass. (21-4-h.p. Indian) was in the ranks of the former aggregation.

The rules governing the contest were very similar to those that characterize automobile runs of the same nature, each competitor starting with 1,000 points initial credit, penalizations being one point for each minute late at controls and two points for each minute early, with an allowance of five minutes for variations in timing. To insure the absence of the long roll of tied scores that has served to rob similar events of interest in the past, Jacob's Ladder in the Berkshires was made the venue of a hill climb, failure to ascend without resorting to the pedals incurring a loss of 10 points, and a dismount 25 points, in Class A, and 25 and 50 points, respectively, in Class B. Moreover, immediately upon arriving at the track in Providence the competitors were given a pint of gasoline and their machines started on an economy run without any adjustments or repairs. This effectually served to make tied scores a practical impossibility.



The route was from New York to Poughkeepsie, Lakeville, Conn., Lenox, Lee, and Springfield, Mass., the last-named constituting the end of the day's run, a distance of 200.3 miles, the first day controls being at Poughkeepsie, Lenox, Lee, and Springfield. The second day's run was to Providence via Worcester, 105.1 miles, with a single intermediate control at the latter. One of the striking features of the contest was the performance of the German machines and

there is every probability that the American maker, who has thus far not even recognized the existence of a change-speed gear, will come to regard this piece of equipment much more favorably.

Trouble began right in sight of home, so to speak, and some of the competitors who had come farthest to participate in the event went the shortest distance. Deupree, a Tennessean, succeeded in covering only three miles, when, after much fussing, he discovered a dead battery that had been new but the day before. He retired, but rode to Providence as a tourist later. White, a Texan whose appearance belied his name, went only 15 miles, his trouble also being due to faulty ignition, but in his case a magneto was the moving cause and inability to diagnose its ailment put him out of the running. An odd accident retired McLaughlin when he was within a few miles of Poughkeepsie, the stand of his machine becoming mixed up with the rear wheel, wrecking the latter.

Though the first stretch was marked by some bad falls, particularly on a protruding piece of car track at Fishkill, it was not until Poughkeepsie had been left behind that the endurance part of the test became evident. There was a heavy fall of snow to mark the second stretch, so heavy that G. A. Snow, of Hartford, Conn., the particular brand of snow that fell, was laid up for two days with an injured back. The real work of the day was concentrated between the Lenox and Springfield controls. Far too much attention of the "nothing to watch but the road" variety was required to permit any appreciation of the picturesqueness



BARROWS, CHAMPION OF THE ENDURANCE RUN.



SEIDELL, VICTOR OF THE COLONIAL HANDICAP.



STRAIGHTAWAY EVENT CONTESTED ON THE BLACKSTONE BOULEVARD, PROVIDENCE, ON THIRD DAY OF MEET.

of the scenery afforded by the Berkshires. Thornley, on a 2 1-4-h.p. Indian, had a bad fall which put him out with an injured leg, and W. H. Wray, 5-h.p. Simplex, was delayed by a broken cotter pin in the exhaust valve stem; W. F. Mann, 4 1-2-h.p. four-cylinder F. N., had to hunt an elusive spark, while Koch, a New Jersey Teuton, on a 3-h.p. Merkel, gravely reported: "I don't find my spark any place," with an appropriate accent. G. H. Ruck, also on an Indian, punctured his oil tank.

The site of the climb was about 300 yards long, with a grade varying from 15 to 18 per cent., and a transverse gully flanked by boulders proved a roof on which quite a few hopes were wrecked. Times were not taken, the only requirement being a successful climb. Barrows and Holden, both on 2 1/4-h.p. Indians, were the first up and they made the climb in beautiful style. Then Chapple gave a two-speed gear performance on his N. S. U.

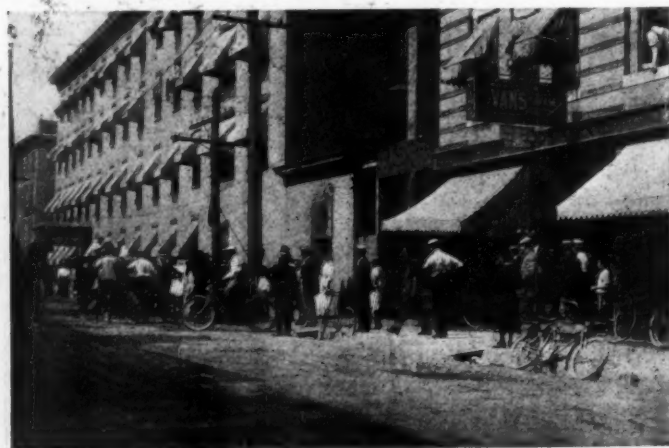
Of the 55 starters, 43 reached Springfield that evening and 42 started the next day, but six of them with their 1,000 points still intact. This number was cut to three by the time Providence was reached, Baker and Holden, second and third, respectively, being eliminated in the economy test with losses of 1 and 6 points by Barrows, who covered 24 miles 3,490 feet on his 2 1-4-h.p. Indian. In Class B, Oscar Hedstrom ran 15 miles 925 feet on a 4-h.p. Indian, but he had lost so many points previously that Cook, on a 5-h.p. Curtiss, with a little less than 12 miles to his credit, was the winner with a loss of but two points. For his performance of 20 miles 1,425 feet in the economy test T. K. Hastings 2 1-4-h.p. Indian, won the private owner's medals and an honor medal for his record of 986 points in Class A. Mr. Hastings left for England last Saturday to compete in the six-day contest of the Auto-Cycle Club of Great Britain, which starts from London.

### NATIONAL F. A. M. MEET AT PROVIDENCE.

PROVIDENCE, Aug. 3.—The national meet of the Federation of American Motorcyclists opened Thursday with road races on the Blackstone boulevard. W. G. H. Wray's free-for-all straightaway mile in :44 3-5 on a 7-horsepower Simplex-Peugeot was considered the feature of the morning's work, and the twenty-mile Colonial handicap was won by J. S. Seidell, of Springfield, Mass., on a 3-horsepower Reading-Standard. In the afternoon at Hills Grove track the two-mile F. A. M. national championship was won by Walter Goerke, of Brooklyn, on a 4-horsepower Indian. In the two-mile open single-cylinder race, J. S. Pickering, of Providence, was fatally injured, his machine striking a soft spot at the three-quarters pole, skidding and throwing him headlong against the base of one of the posts.

In Friday's races Stanley T. Kellogg on a 4-horsepower Indian was the bright and particular star, winning both the mile and ten-mile F. A. M. national championships at Hills Grove and the hill climb on Francis street. Goerke, of Brooklyn, and Peter Cox, of New Haven, came together in the ten-mile handicap, owing to the dust, both being thrown and sustaining bad scalp wounds, but were otherwise uninjured. The run to Newport, scheduled for Saturday morning, was called off owing to the death of Pickering, who was injured in Thursday's races.

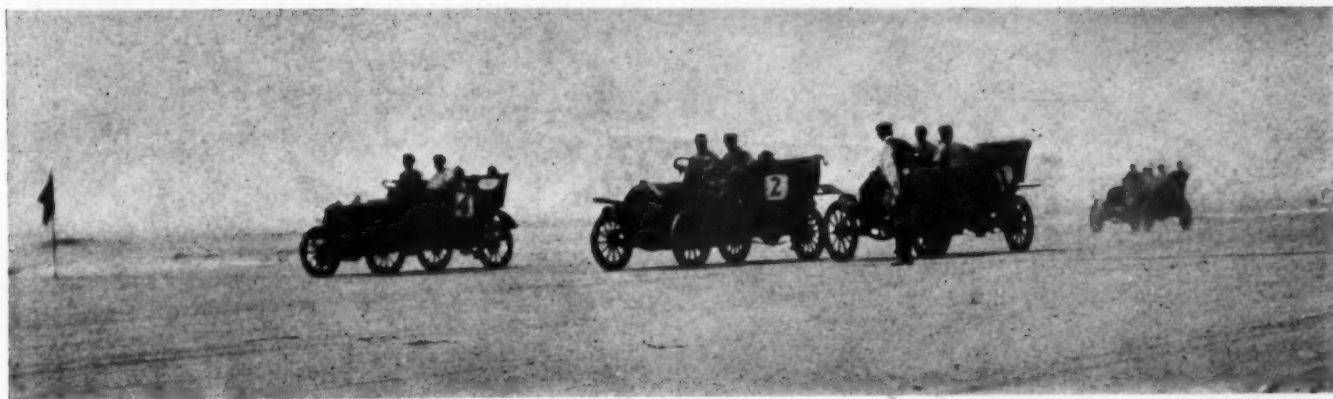
The annual meeting resulted in the following officers elected for the ensuing year: President, R. G. Betts, New York; vice-president, William Suddard, Providence, for Eastern District; E. Y. White, San Antonio, Tex., for Southern District; R. K. Holmes, Los Angeles, Cal., for Pacific Coast District; secretary, Henry J. Wehman, New York; treasurer, G. B. Gibson, Westboro, Mass.



CHECKING IN AT THE FIRST CONTROL, POUGHKEEPSIE.



G &amp; J TIRE SUPPLY CAR THAT ACCOMPANIED THE RUN.



START OF THE \$3,000 TOURING CAR CLASS ON FIRST DAY, T. W. BERGER'S OLDSMOBILE FIGURING AS THE WINNER.

## ATLANTIC CITY'S CARNIVAL GIVES GOOD RACING

ATLANTIC CITY, N. J., Aug. 5.—The annual race meet at this bustling seashore city, included this time as a part of a Summer automobile carnival, began this morning on the beach at Ventnor. The competitive part of the carnival is in the hands of the Atlantic City Automobile Club, with Harry Cook as the experienced chairman of the Racing Committee. Such old-timers as Reeves, Wagner, Burke, Dieges, Clinton, Partridge, Moore, Healy, and Smith are included in the official list. Harry S. Houpt is an interested observer of his Vanderbilt Cup race flyer; F. B. Stearns, the Cleveland manufacturer, is keenly involved in the performance of his fast stable; and Messrs. Lawrence and Moulton look after the B. L. M. racer as though it were a favorite child, which of course it is, since they are its builders. Walter C. Martin, the Rolls-Royce importer, is in evidence, as are many other prominent tradesmen.

Following the races of to-day, to-morrow, and Wednesday, will come a floral parade Wednesday afternoon. Thursday is the day set for the opening of the week's display of automobiles on the famous Young's pier. C. Wood Tatham is the president of the carnival committee, which unquestionably will cause the name of Atlantic City to be printed thousands of times as a result of the annual innings of the autos.

It is anticipated that, as is often the case where stock car events are contested, there will be a substantial number of protests for intentional and unintentional evasion of the exact letter of the rules.

### RESULTS OF THE FIRST DAY'S RACING.

After the regular program had concluded this morning a special mile challenge event took place which proved to be the feature of the competition. Guy Vaughn, driving A. W. Church's

Stearns, defeated the B. L. M. Vanderbilt Cup car, piloted by Frank Lawrence; a Rolls-Royce, with L. R. Burne at the wheel, while Harry Levey's Mercedes brought up the rear in charge of John Barr. The mile was traveled in 0:57 3-5, and the winner had nearly a hundred yards the best of it at the finish. Mr. Levey was the challenger and responsible for the \$500 purse.

The event for gasoline runabouts, of all types, fully equipped, originally had thirteen entries, but after the referee had looked them over only five remained for the race. After F. W. Leland, an added entry, had won with a 30-horsepower Stearns, with A. W. Church and another Stearns second, and W. McIlvrid third with a Thomas, a protest was lodged against the two Stearns cars. Subsequently the referee ruled against the Stearns driven by Leland and dismissed the protest against the Stearns driven by Church. Leland's car was minus a muffler.

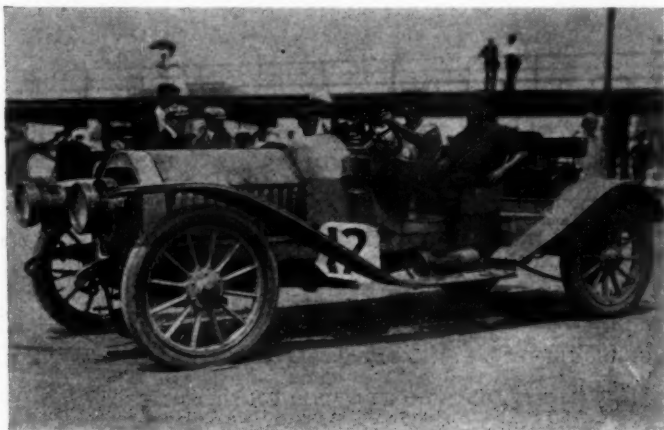
The third victory of the day for the Stearns came in the touring car class, \$5,000 or less, regularly equipped.

In the touring car championship, 60 horsepower or less, regularly equipped, and carrying five passengers, the field was reduced to two by the failure of entrants to comply with the conditions. F. H. Hancock's six-cylinder Duryea defeated a 50-horsepower Matheson.

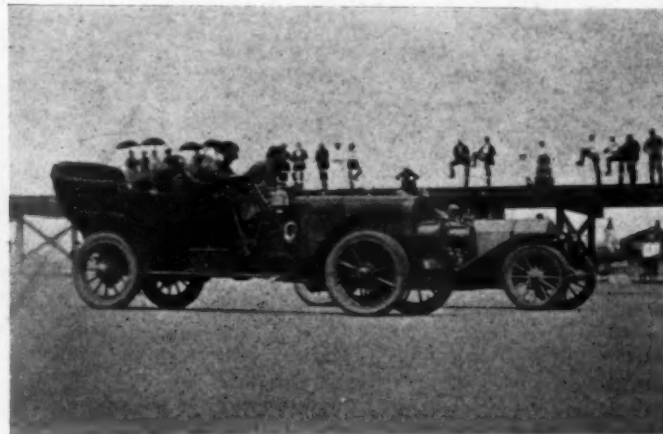
The other winners were an Oldsmobile, which captured two touring car classes, \$3,000 or less, first carrying five passengers and then repeating without passengers; a Maxwell, in the \$1,200 or less runabout division, and a Mercedes in the foreign car class. The summary follows:

### TOURING CARS, GASOLINE, \$3,000 OR LESS, REGULARLY EQUIPPED (CARRYING FIVE PASSENGERS).

1. Oldsmobile, 35-h.p.; Phila. Motor Shop; driv., T. W. Berger. 1:15
2. Pope-Hartford, 35-h.p.; Miss Alice S. Lyon; driv., Hoffman
3. Stod.-Dayton, 30-h.p.; Hamilton Auto Co.; driv., Leinbach



CHURCH'S SIX-CYLINDER STEARNS, WINNER OF SPECIAL MATCH.



STEVENS-DURYEA "SIX" DEFEATING MATHESON "50" ON FIRST DAY



MESSRS. LAWRENCE AND MOULTON OF THE B. L. M. CO.

#### RUNABOUTS, GASOLINE, \$1,200 OR LESS, REGULARLY EQUIPPED.

1. Maxwell, 14-h.p.; Maxwell-Briscoe Co.; driv., C. Fleming. 1:32 4-5
2. Buick, 22-h.p.; Edwin Wilkie; driver, Thomas Wilkie. ....

#### TOURING CARS, CHAMPIONSHIP, 60-HORSEPOWER OR LESS, REGULARLY EQUIPPED (CARRYING FIVE PASSENGERS).

1. Stev.-Dur., 50-h.p.; Stevens-Duryea Co.; driv., Hancock. 1:06 3-5
2. Matheson, 50-h.p.; Matheson Company; driver, J. P. Gray.

#### RUNABOUTS, GASOLINE, ALL TYPES.

1. Stearns, 30-h.p.; A. W. Church; driver, F. W. Leland. .... 0:52
2. Stearns, 30-h.p.; A. W. Church; driver, A. W. Church. ....
3. Thomas, 60-h.p.; E. R. Thomas; driver, W. McIlvrid. ....

#### TOURING CARS, GASOLINE, \$3,000 OR LESS, REGULARLY EQUIPPED.

1. Oldsmobile, 35-h.p.; Phila. Motor Shop; driv., T. W. Berger. 1:14
2. Stod.-Dayton, 30-h.p.; Hamilton Auto Co.; driv., Leinbach
3. Maxwell, 40-h.p.; Maxwell-Briscoe Co., driver, C. Fleming

#### FOREIGN CARS, 60-H.P. OR LESS, REGULARLY EQUIPPED.

1. Mercedes, 60-h.p.; Harry Levey; driver, John Barr. .... 1:15 3-5
2. Rolls-Royce, 50-h.p.; W. C. Martin; driver, L. R. Burns. ....

#### TOURING CARS, \$5,000 OR LESS, REGULARLY EQUIPPED.

1. Stearns, 30-h.p.; A. W. Church; driver, Guy Vaughn. .... 1:01 1-5
2. Stearns, 30-h.p.; A. W. Church; driver, A. W. Church. ....
3. Stearns, 30-h.p.; Phila. Motor Shop; driver, C. W. Schlipf

#### SPECIAL MILE CHALLENGE RACE.

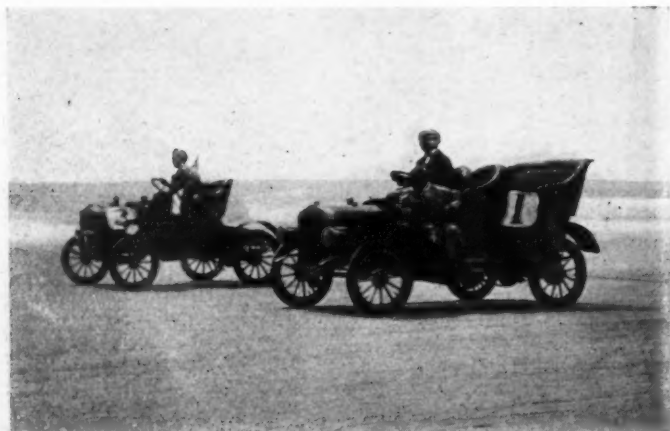
1. Stearns, 45-h.p.; A. W. Church; driver, Guy Vaughn. .... 0:57 3-5
2. B. L. M., 30-h.p.; B. L. M. Co.; driver, F. Lawrence. ....
3. Rolls-Royce, 50-h.p.; W. C. Martin; driver, L. R. Burns. ....
4. Mercedes, 60-h.p.; Harry Levey; driver, John Barr. ....

#### STEAM CARS, OPEN TO ALL.

1. Stanley, 25-h.p.; driver, D. W. Harper. .... 0:53 2-5

#### HOUPPT'S VANDERBILT CUP CAR A WINNER.

ATLANTIC CITY, N. J., Aug. 6.—The feature event of the second day's racing was the free-for-all one-mile championship for



MAXWELL VERSUS BUICK, FIRST DAY, MAXWELL WINNING.

gasoline cars, which united one of last year's Thomas Vanderbilt racers, driven by Montague Roberts; the B. L. M. racer intended for the Vanderbilt, driven by Frank Lawrence; a six-cylinder Stearns, driven by Frank Leland; a 90-horsepower Matheson, handled by J. B. Ryall; Harry Levey's 30-horsepower Mercedes, in charge of John Barr, and a six-cylinder Stevens-Duryea, driven by P. J. Robertson.

In the first heat the Thomas won in :42 3-5, the Stearns being second in :43 1-5, and the B. L. M. third. The Stevens-Duryea beat the Matheson by more than 100 yards in the second heat; time, :50 1-5. A stirring race was witnessed for the final between the Thomas, Stearns, and Stevens-Duryea. Roberts, who got an easy lead, rushed his 120-horsepower Thomas over the finishing line in :40 2-5, the best time of the season and two seconds faster than his previous heat. The Stearns, which also improved on its previous run, was second in :41 4-5, with the Stevens-Duryea fifty yards behind.

An Oldsmobile, driven by T. W. Berger, won a keenly contested handicap for gasoline cars, uniting five starters. A 30-horsepower Stoddard-Dayton was a very close second; the others, a Jackson, Pope-Hartford, and Maxwell, being closely bunched. T. W. Berger also won the Lyons Cup for American touring cars of 30 horsepower or less, in 1:14 1-5, beating a Stoddard-Dayton.

The gentlemen's roadster handicap, uniting eleven starters, found a victor in a 40-horsepower Thomas, driven by W. McIlvrid, defeating a Stoddard-Dayton by about ten yards.

Guy Vaughan won the class handicap for cars with a record of 1:10 or better on a beach track in his 45-horsepower Stearns, defeating D. W. Harper's Stanley steamer by about twenty yards.

All the wires working the electrical timing apparatus having been cut by vandals during the night, some rush work had to be performed to put the apparatus in order again in time for the races. The lowering of Ventnor Beach records was rendered almost impossible by heavy rain, which fell to within a short time of the start of the day's events. This was a reason given for the inability of the Thomas "Cup" car to come closer to Walter Christie's course record of 34 seconds. The summary:

#### TOURING CARS, GASOLINE, \$1,500 OR LESS.

1. Jackson, 20-h.p.; Jackson Auto Co.; driver, W. J. Hayes. 1:26 3-5
2. Buick, 22-h.p.; Edward Wilkie; driver, Edward Wilkie. ....

#### PRICE HANDICAP, GASOLINE, REGULARLY EQUIPPED, CARRYING FIVE PASSENGERS; \$4,000; SCRATCH; HANDICAP OF ONE SECOND FOR EACH \$200 LESS IN PRICE.

1. Oldsmobile (scratch), 35-h.p.; driver, T. W. Berger. .... 1:32
2. Stoddard-Dayton (1 sec.), 30-h.p.; driver, E. L. Leinbach. ....
3. Jackson (2 1-2 sec.), 24-h.p.; driver, C. Smith. ....

#### FREE-FOR-ALL; CHAMPIONSHIP; GASOLINE; FLYING START. (Record Held by Walter Christie; 34 Seconds.)

##### First Heat:

1. Thomas, 120-h.p.; H. S. Houpt; driver, M. Roberts. .... 0:42 3-5
2. Stearns, 45-h.p.; F. B. Stearns Co.; driver, F. W. Leland. .... 0:43 1-5

##### Second Heat:

1. Stev.-Dur., 50-h.p.; Stev.-Dur. Co.; driver, P. J. Robinson. 0:50 1-5
2. Matheson, 90-h.p.; Matheson Co.; driver, J. B. Ryall. ....

##### Final Heat:

1. Thomas, 120-h.p.; H. S. Houpt; driver, Montague Roberts. 0:40 2-5
2. Stearns, 45-h.p.; F. B. Stevens Co.; driver, F. W. Leland. .... 0:41 4-5

#### JOHN H. LYON CUP, OPEN TO AMERICAN TOURING CARS OF 30-H.P. OR LESS, REGULARLY EQUIPPED; CARRYING FIVE PASSENGERS; OWNERS TO DRIVE.

1. Oldsmobile, 30-h.p.; T. W. Berger; driver, T. W. Berger. .... 1:14 1-5
2. Stod.-Dayton, 30-h.p.; P. F. Rockett; driver, P. F. Rockett
3. Maxwell, 24-h.p.; Charles Fleming; driver, Chas. Fleming

#### GENTLEMEN'S ROADSTER, PRICE HANDICAP, \$5,000, SCRATCH; ONE SECOND FOR EACH \$200 LESS IN PRICE; OWNERS TO DRIVE.

1. Thomas (10 sec.), 40-h.p.; driver, W. McIlvrid. .... 1:11 3-5
2. Stod.-Dayton (9 sec.), 30-h.p.; driver, E. L. Leinbach. ....
3. B.L.M. (5 sec.), 24-h.p.; driver, H. G. Moulton. ....

#### CLASS HANDICAP, OPEN TO ALL CARS WITH ESTABLISHED

#### MARK OF 1:10 OR BETTER ON BEACH TRACK.

1. Stearns (7 sec.), 45-h.p.; driver, Guy Vaughn. .... 1:07 2-5
2. Stanley Steamer (4 sec.), 25-h.p.; driver, D. W. Harper. ....
3. Matheson, 30-h.p.; driver, F. Lescault. ....



GENERAL VIEW IN THE VICINITY OF THE GRANDSTAND—NOTE EXCELLENT ROAD WHICH STRETCHES AWAY INTO THE DISTANCE.

## MINERVAS FIRST, SECOND, THIRD IN ARDENNES CIRCUIT

**B**ASTOGNE, BELGIUM, July 30.—At an average of 59.8 miles an hour, Moore Brabazon, on a Minerva, rushed over the finishing line on the Ardennes circuit, winner of the 372-mile race under German Emperor rules. Twenty seconds later Kooloven had captured second place, also with a Minerva; fifty-two seconds behind was Lee Guinness, the British sportsman, on a third Minerva; an interval of forty-one seconds and Hanriot had piloted a Benz to fourth place; seven minutes twenty-two seconds behind was Hieronymus on a Gaggenau; four minutes twenty seconds more and Warwick Wright's Minerva was over the line and the race was declared finished, those still running being officially ignored. Lovers of keen sport and close finishes could not ask for anything more exciting than a race in which all the contestants rushed to the finishing line in an interval of less than fourteen minutes.

There were twenty-three machines in line when, at 5 o'clock, the starter sent away Warwick Wright, of London, on his Minerva car from Antwerp. Moore Brabazon and Lee Guinness, also from across the Channel, formed, together with Koolhoven, one of the factory representatives, the quartet for the leading Belgian firm. Other contesting machines were three Gaggenau, three Adler, two Ariès, the sole French representatives, three Imperia, three Benz, three Pipe, with Jenatzy as one of their drivers, one Metallurgique, and one Mercedes.

At the outset the three Pipe machines, driven by Hautvast, Jenatzy, and Deplus, set a rapid pace, shaking off all competitors except the Minervas and the Metallurgique. At a third of the distance the Pipes were leading, with Lee Guinness' Minerva hanging close, when accidents of the course put the three ma-

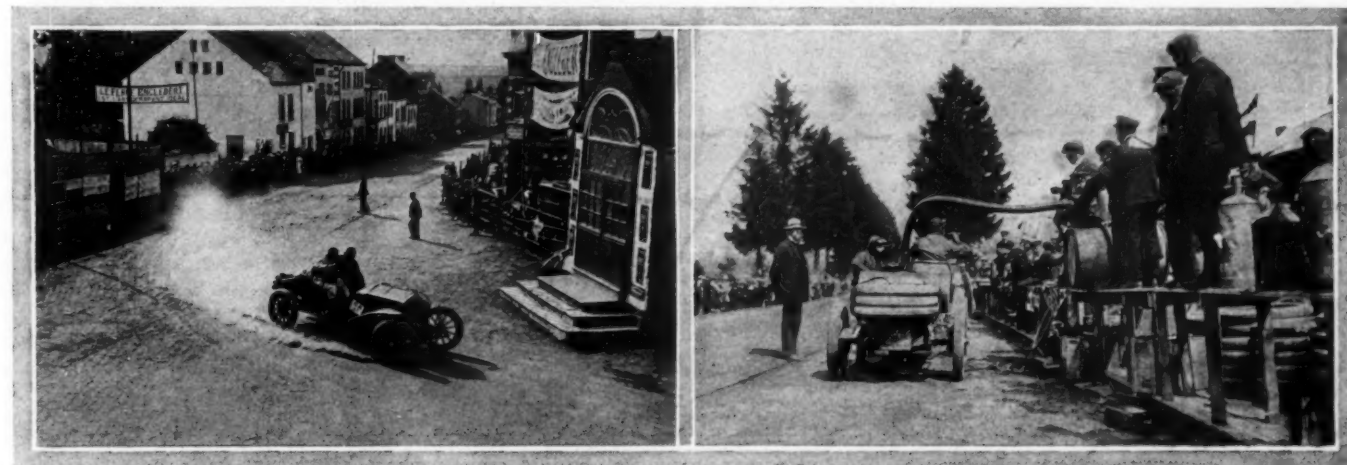
chines which had given Nazzaro so much trouble on the Taunus circuit entirely out of the contest. *Le Terrible Hautvast*, who on the first round had appeared with the remains of a dog adhering to his starting handle, shot over a ninety-foot embankment on his fourth round and was carried to Brussels with slight injuries. Jenatzy overturned at Martelange with very slight injuries, and almost at the same place his team mate, Deplus, met with a similar accident, causing a broken shoulder and a wound on the head, not considered dangerous.

These eliminated, Minerva remained sure for first place, Hanriot alone, on a German Benz, menacing their position. Hanriot, who since leaving Darracq is open to drive for the best bidder, was dangerous for a long time. He was twelfth at the end of the first round, gained one place on the second, two on the third, five on the fourth, and at half distance was but one minute behind the leader. A blow-out on the last round detained him several minutes and threw him down to fourth position.

At 12 o'clock the race was declared off, those not having completed the course at that time being considered non-finishers. Compared with the German Emperor race on the Taunus circuit, held under the same regulations, the speed of the winning Belgian car is six miles an hour faster than the victorious Fiat. The Taunus circuit was certainly more difficult than the one in Belgium and weather conditions there were not so favorable.

Timed for 100 kilometers, standing start, Hautvast, on a Pipe, gave an average of 66.4 miles an hour. Lee Guinness, on a Minerva, made the two fastest rounds at an average speed of 66.59 miles an hour, Hautvast being a very close second.

In the motorcycle races over two rounds of the Ardennes cir-



BRABAZON, THE MINERVA WINNER, PASSING THROUGH BASTOGNE.

ROBL'S GAGGENAU TAKING ON GASOLINE NEAR GRANDSTAND.

cuit, Contant, on a Werner, was the speediest at an average of 44.3 miles an hour. In the light racer class Bucquet, on a Grifon, finished first at 42.6 miles an hour.

Baron de Caters won the 372-mile open race on a Mercedes in 6:29:10, being an average of 57.5 miles an hour. Lee Guinness on Darracq was 84 seconds behind the winner, Jenatzy (Mercedes) a poor third, and De Laminne fourth. The two British eight-cylinder Weigels did not officially finish. The machines, which had all figured in the Grand Prix—with the exception of the De Laminne—made a poor impression. They consumed more gasoline and were much slower than in the French race, their speed not being equal to that of the German Emperor rule racers of the previous day. Jenatzy, who had gripped valve stems and a broken frame, finished through sheer tenacity; Guinness was beaten in sight of the finishing post.

### THAT CALIFORNIA VANDERBILT COURSE.

In its current issue, *Pacific Motoring*, published in Los Angeles, Cal., seems somewhat skeptical concerning the convenient availability of California for the Vanderbilt Cup race. It comments:

Some of the Los Angeles dealers still contend that the great American Derby can be run on roads near to Los Angeles. Of course, with our great hotel accommodations and conveniences for handling tourists, gently and otherwise, it would be very nice to have some good roads handy by. But, alas, the good roads will not materialize near to this great city, and we must go a hundred miles away to find said good roads.

As already stated in these columns, Kern county has the good roads needed for a great automobile race, and these nature made roads are fast, smooth and roomy, besides having little or no dust on them. If such a thing was possible, as the moving of the Vanderbilt Cup race from the Atlantic Coast to California, no better road could be found than across the plains north of Bakersfield. Here is one stretch of 32 miles from Bakersfield suburbs to Delano, like one great billiard table, while to the south of Bakersfield, on the great Tejon Rancho, is miles and miles of this natural road on the mesa—road that is dustless, hard, smooth, and, of course, very fast.

But aside from the mesa roads, California offers the great dry lakes of the desert, which are beyond compare for a big race course. One at Rosamond, near the Kern county line, and near the main railroad from the north to the south, is eight miles long and nearly as wide and perfectly level and smooth, while to the northeast and almost adjoining is a still larger dry lake. As to the question of caring for the spectators, a large city near by is not necessary in California, where climate means so much. Tents by the hundred can be obtained quickly and an automobile camp established, while jackass rabbits are so plentiful out there on the desert that none among all the auto horde need go hungry.

### MR. VANDERBILT TO THE A. C. OF FRANCE.

In commemoration of the three Vanderbilt races won by France, three handsome bas-reliefs, designed and executed by Tiffany, have been presented to the Automobile Club of France in the name of W. K. Vanderbilt, Jr. Chairman Jefferson de Mont Thompson, who had charge of the presentation, sent the following letter to the president of the French club:

Monsieur le Baron von Zuylen,

President Automobile Club of France.

I have the honor to inform you that, as Chairman of the Racing Board of the American Automobile Association, and of the Vanderbilt Cup Commission, I am entrusted to present to the Automobile Club of France, in the name of W. K. Vanderbilt, Jr., three bas-reliefs in bronze commemorating the three Vanderbilt races won by France, namely, the first race won on October 8, 1904, by Heath, on a Panhard-Levassor; the second race won on October 14, 1905, by Hemery, on a Darracq, and the third on October 6, 1906, won by Wagner, on a Darracq.

Yours faithfully,

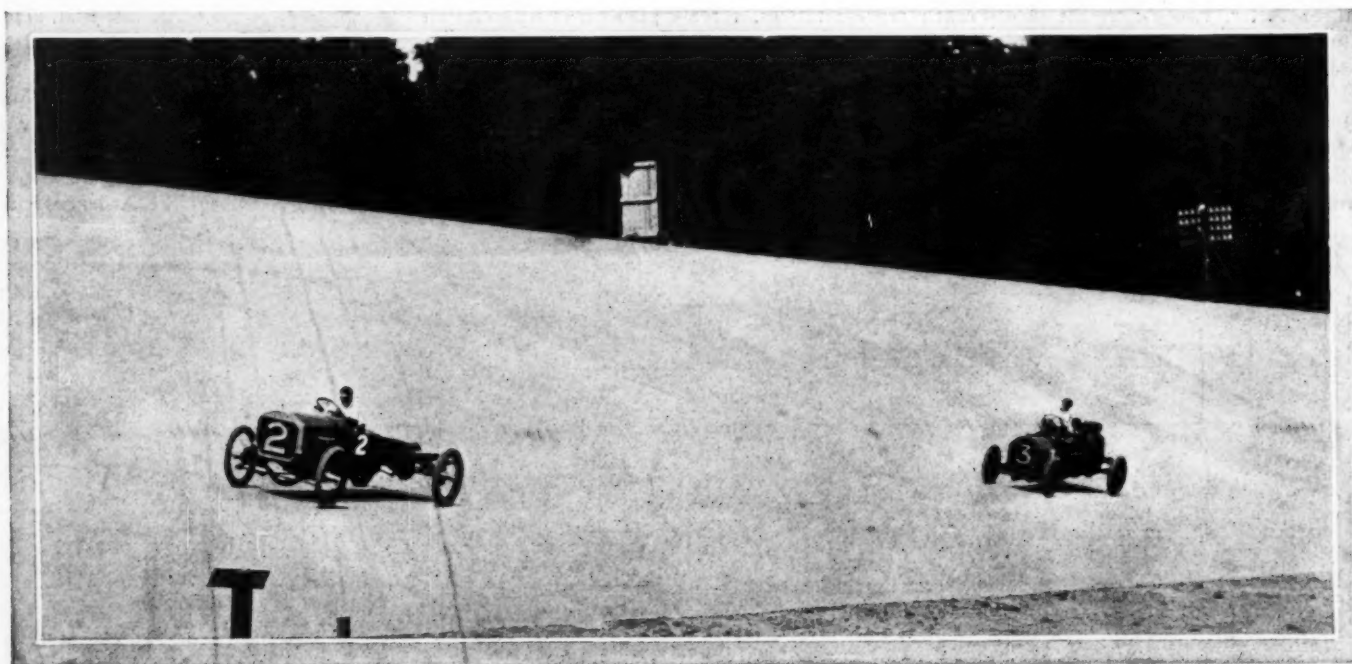
JEFFERSON DE MONT THOMPSON.

### SECOND BROOKLANDS MEET FALLS FLAT.

LONDON, July 27.—There was a thinning of the ranks of the public at the second Brooklands automobile track meeting, and but meager sporting interest for those who did attend. Of the six races one was a hopeless failure, and three others were but a procession of cars around the course. Tom Thornycroft, on a Thornycroft, won the \$1,000 Manx stakes for 29.331 miles on a gallon of gasoline, his rivals, Vinot and Gladiator, not finishing for lack of fuel. S. F. Edge, on a Napier, captured the Surrey stakes of \$250, and the Century stakes of \$500 were carried off by Newton driving one of Edge's Napiers, Huntley Walker, on a Darracq, being a close second. In a race between an Ariel-Simplex and a White steamer, the American car was defeated by the blowing out of a safety valve half a mile from home. The only excitement of the day was the burning of an Aries and the jumping of the bank by Huntley Walker's Darracq.

### Edge Issues Challenge for a Team Race at Brooklands.

At the third meet S. F. Edge won the international plate, a Dietrich being second and Thornycroft third. Edge has issued a challenge for \$5,000 to race a team of six Napiers against a team of any other make having equal cylinder capacity. Three races are proposed at distances of 300, 200 and 100 miles to be decided on the Brooklands track some time this month.



CLOSE RUNNING AT BROOKLANDS TRACK BETWEEN NEWTON ON NAPIER AND HUNTLEY WALKER ON DARRACQ.

## SOME COMMONER CAUSES OF TROUBLE

By CHARLES B. HAYWARD.

NEITHER men nor machines fall seriously ill frequently; the ills of life, both human and mechanical, are usually things of comparatively small moment, though they may appear large at the time. The bit of a sick headache or the touch of nausea that makes a man regard the ordinary routine of life as something to which he is utterly oblivious and has no care to enter, have their counterparts in the small derangements to which any intricate assemblage of mechanical devices, such as constitute the automobile, must ever be heir to, and they likewise cause a cessation of the usual order of things—generally by bringing the car to a halt. Exception may be taken to this characterization of the automobile by those who have had its extreme simplicity constantly dinned into their ears for the past few years, and there is no intention here to attempt to undermine such an impression. The automobile, as it stands to-day, is a marvel of simplicity; it probably has fewer parts for the number of functions its power plant and transmission are called upon to perform than any equivalent piece of machinery, if such there be; but the fact that these functions are necessarily numerous cannot be overlooked, and the number of parts needed to perform them satisfactorily must be correspondingly so.

### What Goes Wrong in the Carbureter?

The amateur driver who would familiarize himself with every part of his machine, to an extent where he will know its every whim and be able to diagnose its every ailment without unnecessary search or delay, must bear this in mind: It will be the small troubles that will vex him most, and in practically ninety-nine cases out of a hundred it will be nothing more than comparatively trivial defections that he must exercise his ingenuity on. Knowledge is an excellent thing, but knowing how to repair and assemble a gear-set or rear-axle unit will not prove much aid in locating the will-o'-the-wisp of a little defect that causes the motor to run jerkily or lose power.

Neither the change-speed gear-set nor the rear-axle driving unit go wrong very often, and when they do it is usually a case requiring the attention of a more skilled doctor, with the facilities of a good establishment at his back, than for amateur tinkering. But a motor may run well one hour and show infallible signs of illness the next, without anything very serious having happened in the interim. It is quite certain that it will be ignition or fuel trouble, by the latter of which is meant a defection of any part concerned in the production or introduction of the fuel into the cylinder. The gasoline feed pipe may be partially obstructed, or the jet of the carbureter may be suffering from a similar ailment; the float may have become punctured and have filled, thus flooding the carbureter and making too rich a mixture. Again, pounding over rough roads may have had the same result by shaking the screw of the needle valve loose; the spindle of the float may have become bent and caused erratic working of the valve governing the fuel supply, so that the latter has become intermittent; or, in systems utilizing this form of feed, the pressure may have fallen to an extent where a continuous supply is impossible. Last, but far from least by any means, is that prolific source of puzzlement—the auxiliary air inlet, which alone is frequently responsible for many an hour spent by the roadside. Its refusal to operate as it should will cause the motor to slow down and lose power on opening the throttle, when the reverse action should follow, and the fact that it yields readily to a push of the finger makes the true cause difficult to unearth.

### There Is No End of These Little Things.

These are not all the carbureter troubles that can possibly happen, though they do, with the numerous modifications brought about by differing circumstances, come pretty near representing the sum total of small ills that afflict this important essential of

the motor. The carbureter may act indifferently because the needle valve has been tinkered with so much that it is no longer a good fit and the spray cannot be regulated; or, on the other hand, it may have been ground in so often on the assumption that this was the case that the result in the end is the same. It may not be getting sufficient warm air, or it may be getting too much—in one case the mixture will be too rich and in the other too thin, and the trouble may not be one that it is possible to overcome entirely by a change of adjustment. An attempt to explain every one of the ills to which the carbureter could possibly be subject would require a volume, and much of it would make uninteresting reading, as many of the ailments would be rare diseases.

### The Most Vulnerable Points of the Ignition.

In treating of the common, every-day troubles of the automobile motor it has usually been customary to give the ignition precedence as a source of minor afflictions, but with the advances made toward providing a high factor of reliability on this extremely important essential of the motor it can hardly be said that there is much to choose between it and the problem of a proper fuel supply. Here the small thing becomes of even greater importance, and the difficulty of locating the defection is usually proportionate to its diminutive size. Naturally, but unfortunately, nevertheless, the ignition system is heir to a number of small ills. Take the high-tension type employing accumulators, as it is the most generally used on American cars to-day, and the best method of making some approximation to a catalogue of its faults and those before which it is most prone to give way is to divide it into its elements. First of all, there is the battery or source of current supply, next comes the timer, and next in the order stated the coils and spark plugs.

A battery of any kind is necessarily a thing of limited duration—its life is short; but it may be prolonged by proper treatment, and, like many other things, it is not always defunct when it gives every appearance of being so. It must be admitted that the battery has had to bear the brunt of many an accusation that should rightly have been directed at some other part, and, when the dry cell was in more general use, many a good set that had weeks of active service in them have been left to repose by the wayside. The chief battery trouble to be guarded against is short circuiting, and to prevent it nothing else should be permitted to occupy the battery box, as the accidental dropping across its terminals of a screwdriver or other piece of metal spells ruination to either a set of dry cells or accumulators, and particularly the latter. In the case of the accumulator there is, of course, a whole list of ills, most of them petty, that need a whole chapter for their proper treatment. They have been reviewed so frequently that it is unnecessary to detail them again here, except to remark that they do not often happen when the accumulator is well taken care of, and when they do the patient should receive the attention of the manufacturer rather than of the amateur driver.

### Each Element Plays an Individual Part.

Excessive current consumption is a so-called battery trouble for which the latter is invariably blamed, but it is, of course, really an ailment of the coil, and should be treated under that head. The step next to the battery is the timer, and it is a prolific source of vexation that is not suspected in more than a fraction of the cases in which it is at fault. But it will be self-evident that any interruption here is the practical equivalent of no battery, and the latter is frequently blamed for the defection or a search made in the opposite direction. Probably the now common practice of running the timer in grease has something to do with the failure to trace faults in the ignition system to this source as often as might be the case. Those whose experience dates back to the early days will doubtless vividly recall what a nightmare

this part of the motor's mechanism constituted to the driver. Poor contact sums up in a word the chief ill of the timer, and as the contact must of necessity be a moving one, the reasons for its occasional failure will be apparent. And of these a weakening of the springs is probably the most common, to which may be added dirt and the giving way of the fastening holding the moving member of the timer on its shaft. When the latter is only partial or has been marked by a slight shifting of the position of the moving member on its shaft and their resumed connection, there are few things more difficult to locate by anything other than a thorough examination of this part.

#### Inherent Defects Are Now Very Rare.

Next to the timer come the coils, and, fortunately, the chief source of ailment here—the trembler—has undergone vast improvement. Present-day coil troubles are not marked half so much by failure of the trembler as by faulty adjustment of the latter, which causes an excessive current consumption and limited battery existence. The tremblers should all be carefully adjusted with the aid of a special ammeter while the motor is working, and then locked in place. If this be done and care taken to see that the relation is maintained there will be little or no trouble from pitted contact points. Poor and half-broken connections must also be guarded against here, and the same, of course, is true to an even greater extent in the case of the battery. Short-circuiting due to moisture is probably about the only other trouble that happens to a coil, short of its burning out by an ill-advised application of excessive current.

The ills to which spark plugs are subject are almost too well known to require detailed mention, and may be summed up briefly as short-circuiting and breaking, and the same is true of the connections forming intermediaries between these various essentials of the ignition system; but, as is the case with the other parts of the latter, a great deal of attention has been lavished on the production of high-proof insulation, as well as upon adequate protection for the wiring and proper connecting terminals, so that as a whole the wiring gives extremely little trouble.

These, in short, are by far the great majority of the common troubles that afflict the carbureter and the ignition system, when the latter is of the high-tension order using coils and batteries.

#### Some Faults of Magneto Ignition.

Contrary to all popular notions on the part of those poorly informed regarding the magneto, the defection of the latter is about as rare an occurrence as the breaking down of the motor itself, by which is meant something wrong with its vital components, such as a broken camshaft or the like. Piston rings wear and so do bearings, besides which there are numerous other small things that can go wrong, but there is seldom anything serious. This is the case of the magneto in a nutshell, except that there are very few small parts involved. Nothing could be simpler than the low-tension alternating generator used with the make-and-break type of ignition. It represents a close approach to the ideal where immunity from breakdown is concerned and practically its only source of trouble is in the contact breaker, which, by reason of wear or the introduction of dirt, may fail to perform satisfactorily. A periodical inspection will avert such an occurrence on the road and it is nothing unusual for a low-tension magneto to run thousands of miles without ever being looked at.

Except for the fact that the problem is slightly complicated by the introduction of the secondary side of the system, and all that entails the high-tension magneto in its present advanced state of improvement differs but very little on the score of reliability from its far simpler rival. Here, again, the only wearing parts are contact points, and with a little attention to the matter of cleaning and oiling while in the garage, there will seldom, if ever, be any necessity for halting by the roadside to make the tour of inspection that should have been done at home. These are all small matters of the class that the philosopher must have had in mind when he coined that terse but expressive saying about the stitch in time.

#### A BRAZING FLUX FOR CAST IRON.

It is always annoying to have parts break, whether they are big or little, but I know of nothing more exasperating than to break some small cast-iron piece, the importance of which is away out of proportion to its intrinsic value, says Ethan Viall in *The American Machinist*.

How often has a man spent hours fussing and fuming, trying to patch up a broken casting, when some way to mend it similar to soldering, but stronger, would have saved much time and trouble. Indeed, in some cases, soldering has been resorted to where strength was not required, but as a usual thing a stronger joint was needed and so attempts were made year after year to find a flux that would enable us to braze cast iron. Many a man has had his heart come up into his mouth upon finding, that after repeated attempts, he had actually brazed a piece and the brass had flowed beautifully, but alas, just as he was about to shout "Eureka!" he discovered that the casting was malleable and not cast iron.

The brazing of cast iron had been attempted without success so often, that it was looked upon by most mechanics as being in the same class with soldering aluminum or hardening copper. And it was not until five or six years ago that it was successfully done. A German was, I believe, one of the first to do this, and he obtained a patent on his method, which consisted mainly in coating the joint with a mixture which was principally oxide of copper and borax boiled together, and then brazing with a flux containing carbonate of soda, boric acid and salt. To use this one had to purchase the mixture of certain parties and also have a shop license. The cost was not only prohibitive, but the method insisted upon was clumsy and troublesome. I was one of the first to use this method, under a license, and quite by accident discovered another flux, far better, and entirely different, which could be used exactly as one would use borax in ordinary brazing. I had for years at odd times tried different chemicals alone and in combination, but without success, when a chance remark dropped by a friend of mine, an expert chemist, regarding the properties of common chlorate of potash, furnished me with the hint I needed. After several weeks of experimenting, I evolved the following formula, which is not patented and can be used by anyone who cares to try it, and which I have used for over four years and which has been used by several of my friends. If a similar formula has ever been given I have never heard of it, and this one is entirely my own. The proportions were obtained by careful experiment.

The ingredients may be obtained at any drug store.

The formula is: Boric acid, 1 pound; pulverized chlorate of potash, 4 ounces; carbonate of iron, 3 ounces. They should be mixed together dry and will look like powdered brick dust. The amount specified should cost about fifty cents and when used should be mixed with grain spelter.

After arranging my pieces to be brazed, I heat them to a nice brazing heat and apply my flux and spelter with an iron rod, flattened on the end to a rough spoon shape, just as if I were brazing a bicycle frame in the usual way. The chlorate of potash must be pulverized, but the iron may be what is known as either carbonate or subcarbonate. The mixture should be kept dry, as moisture or long exposure to the air renders it less efficient.

In arranging the pieces for brazing I either lightly clamp them together or use stiff fire clay to hold them in place, but anyone who has done ordinary brazing will readily find a way to fix the pieces. The size of the pieces which can be handled successfully is limited by the heating facilities. A gas or gasoline forge is best, my preference being for the gas. A coal forge may be used, however, though it is not so convenient and when it is used coke or charcoal should be burned, as coal does not make a clean fire. When properly brazed a casting cannot be broken again in the same place—something that cannot always be said of other methods of repairing which are far from being as easily executed as is the operation just described.

## FOR THE AMATEUR OWNER WHO DRIVES

By THE MAN AT THE WHEEL.

**B**Y dint of personal application it is probable that the average person can learn almost anything he makes up his mind to master—a fact which the average amateur owner soon comes to realize while his first extremely hazy notions as to the intricacies of the automobile fade into thin air at the same time. But there are two distinct classes of A. O's; those who are everlastingly tinkering; in fact, those who take as much, if not more, pleasure tinkering with their cars than they do in employing them for more legitimate ends, and those who go to the opposite extreme by not giving the mechanism any attention at all. It may be thought that the latter constitutes a rare and seldom to be met with class, but such is not the case. There is many an owner to-day who can handle the wheel to the great admiration of his friends and who does not leave stripped pinions behind on every occasion of shifting the gear lever, but who is down and out, to take advantage of the vernacular, the moment there is anything wrong. Needless to add, it is not to this class that these hints are directed. Things mechanical are a profound mystery to many an otherwise well-versed individual whose lack of interest in the subject robs him of any incentive to make himself familiar with his car.

### Well-groomed Cars Seldom Default.

It is the charity that begins at home that minimizes work while on the road, and if a car is properly taken care of when it should be, which is between its periods of running, there will be scant occasion to interrupt the latter in order to make adjustments or repairs that should have been attended to at home. Given the equivalent of the mechanism of an automobile in the hands of a trained engineer every hour in the day, and its owners would require him to prepare a carefully made out report as to its condition during the entire time it was under his charge, every defection, every cause of stoppage and every repair made would have to be noted, as well as the amount of lubricating oil and fuel it consumed. By comparing these daily reports the owner of such a machine could tell whether it were operating as economically and as efficiently three years after it was installed as it was when first set in operation.

It may be too much to expect of the average amateur owner who prefers to drive his own car to add a burden of clerical labor to his caretaking, but the hint is one that may be availed of to considerable advantage. For instance, a crankcase should be cleaned out at stated intervals and the oil replenished and the same is true of both the gear-set casing and the differential and bevel drive. Nine out of ten drivers could not tell you when this was done last, and while the proper period may not have elapsed, the chances are in favor of it having been considerably exceeded. Cases have come to light where progressive owners have, at the expense of a dollar or so, installed a good-sized blackboard on the wall of their garages, using it to note such data as that just referred to. When a man who has his own best interests at heart sees "Fresh Oil in Gear Case, 3-1-07" staring him in the face week after week, it is safe to say he is far more apt to remember that a change is necessary than if he depended on his own memory.

### Serious Expenses May Be Avoided.

It is safe to say that every amateur owner who drives his own car from preference is anxious to avoid those *denouements* that make a heavy draught on the pocket and the absence of the car from its accustomed service. Serious accidents are rare, of course, but they do happen, and if in his regular rounds in looking after small matters the amateur also takes the trouble to keep an observant eye out for the things that lead to serious trouble, the latter may frequently be avoided at a nominal expense for preventives rather than a substantial bill for

the remedy. One fault of many low-priced American cars is an inherent weakness of the rear-axle unit. Not that they are very poorly designed or very poorly built by any means; mounted on skids the mechanism would transmit the full power output of the motor without trouble until it actually wore out, and if all roads were level, by which is meant well-paved, probably the same thing could be said of its service on the car. But every now and again there is the sudden and unexpected meeting with a road gulley or water break into which the rear wheels drop with an ominous thud. Add to this the more or less frequent pounding over car tracks and similar obstructions and it will be realized that the most destructive agency is not the transmission of the power in its wear on the moving parts, but the hammering to which they are subjected. This tends to loosen the nuts of strut and torsion rods, and once the strain on these important stays is relieved disalignment of the rear axle components speedily follows. Of course, this advice would be properly included under the generic head of "keep all bolts and nuts on the car tight by frequent inspection," but there are many of these fittings the temporary loss of which is not attended by grave consequences, although they should naturally be replaced without delay. On the parts in question, their absence is almost certain to lead to one of those discouragingly large repair bills which every amateur driver is so anxious to avoid so they may profitably be made the subject of special attention.

Instances are not wanting where the loss of what would appear to be a most trivial part has been the sole moving cause of one of those sieges at the repair shop, the expense of which proves so discouraging to the autoist who has to count the cost. The cotter dropped off the nut which held one of the bolts of a double-yoke universal situated just back of the gear box on a shaft-driven car; later the nut came off—so much later that an inspection at any time within a fortnight would have prevented the trouble. But it was not made and the forward end of the propeller shaft dropped, caught in the road and played havoc with things generally.

### Some Ancient Admonitions Revived.

There has been so much said on the subject of the proper care of tires that it would seem to be worse than carrying coals to Newcastle to attempt to go further into the subject, especially when it is the intention to cover the same ground. Doubtless American tire manufacturers have had sufficient literature printed on this subject to supply every man, woman and child in the country with at least one copy. Yet there are hundreds of owners who cannot see the wisdom of having all their tire troubles at home. That is, all that are not absolutely unavoidable, and the mere fact that a puncture happens twenty miles from home does not put it in this class, for probably if the tire to which it occurred had been properly inflated before leaving the rubber destroyer might not have been able to make its way through the tread.

Look at your tires frequently, keep your eyes on them as much as possible, and by so doing you will be able to do most of your tire work at home. I know from personal experience that if tires were carefully looked over every morning before a car was taken out, the percentage of punctures would be considerably reduced, and to demonstrate this to a skeptical friend I took him with me to make a round of a dozen or more cars drawn up at a railway station. From one we took a horse-shoe nail and from another a good-sized chunk of glass. In either case the closing chapter was only a matter of a short time, for both objects were so situated that the continued pounding on the road would send them through the tread. "Oh, that's nothing," one driver remarked. "We are picking those things up all the time."

## GLEANINGS FROM EUROPEAN AUTO PRESS

**A** CRY of mockery has gone up from certain British journals as the result of the defeat of France in her own long-distance road race. Georges Prade, the versatile editor of *Les Sports*, does not appreciate the joyfully compassionate "Poor France" of a certain London journal and hits back vigorously as follows:

It is a lie that we received Nazzaro coldly. We have won enough races, thank God, to be able to lose one. We also lost, once, the Gordon Bennett Cup in Ireland. I won't speak of the manner in which it was gained in 1902 by S. F. Edge's Napier. Everybody is aware—and the English delegate himself—that the Napier won by a violation of the rules, being pulled out of a bad position by peasants. We have a light heart. We salute Nazzaro as a victor. There were twenty-four French cars at the start; there were twelve at the finish—just 50 per cent. There were fourteen foreign cars at the same starting line; there were four at the finish—not even 30 per cent. That ought to satisfy you Englishmen, lovers of regularity and good order. You will tell me that there was no English machine among them. That is true. Your national industry was never in the game: eighteenth and thirty-sixth on the first round, twenty-eighth and thirty-second on the second round, twenty-fifth and thirty-second on the third round; one of your machines went out on the fourth round and the other, your champion, passed twenty-ninth and disappeared on the fifth round. We should be heartless and insensitive to all good taste if we did not say, "Poor England; what a wreck!" Supposing the race had been run as a team test, giving each car the number of points represented by its position at the finish, and the non-finishers the maximum number 38, under such a system the 24 French cars would have received a total of 552 points, or 23 per car. The 14 foreign machines would have received 420 points, or an average of 30 points per car, placing them 7 places behind us. This is the reason why we do not accept your "Poor France."

### Parisian Authorities Converted to Tarred Roads.

With the increase of public automobile services throughout the country, says *Omnia*, a serious road problem comes up for settlement. Certain roads in Paris, with their increased loads, are no longer able to stand the heavy traffic. The allowance of material for their upkeep is no longer sufficient, in view of the increased speed and volume of automobile traffic. On certain roads largely used by fast automobiles, says the report to the Department of Public Works, a remade surface only lasts a third of its former time. The Government allowance for roads has diminished successively from 1890 to 1905 from thirty millions and a half to twenty-nine millions. It was only in 1906 that the credit was again brought up to 30,000,000 francs by a special allotment in view of the extra work of road repair men. Some twenty years ago certain provincial engineers and modest road surveyors sprinkled gas tar on the roads, with excellent results, considered extravagant by the authorities. It needed a large amount of perseverance on the part of humble gas tar to overcome the official inertia of Parisian engineers. The tarred road through the Bois de Vincennes was a horrible bog, and the Versailles and Saint-Cyr roads no better, they declared. To-day that has changed and Parisian authorities are busy with the tar brush. The Avenue du Bois de Boulogne has received a good coat of tar—too good, in our opinion; the Champs-Elysees will not escape and the Place de la Concorde will undergo the same treatment. In the report to the Chamber it is stated that the authorities should declare frankly for tarring the road or sections of roads, even in the open country, where there is a big automobile service. Acting on this, the Minister of Public Works has appointed a commission to study the question. As it requires four years to make a test of this nature, we should have to wait a

long time had not more enlightened spirits been at work for the past twelve years, perfecting systems which may be used by the authorities for the whole of the paved streets of Paris. In the provinces they know how to tar the roads without leaving them an ugly black tint, merely by sprinkling a little white sand on the surface before it finally dries. We should have preferred to see this color for the Avenue du Bois de Boulogne in preference to the sad official tint.

### Shall Oxygen Be Allowed on Brooklands Race Track?

Since England obtained its automobile speed track it has been pestered with the question, "Shall oxygen be used?" Opinion is divided, as is shown by the shoals of letters daily falling on the editorial tables. The editor of the *Motor* expresses himself on the "problem" as follows:

Oxygen has occasionally been used for hill-climbs, but since the first Brooklands race meeting it has come very much to the front, the possibilities of its use having been then practically demonstrated. Without doubt, engine power can be increased by the use of this gas. Literally, petrol is simply a gas in liquid form, and it seems quite logical to use with it any other gas that can be obtained in convenient form. Oxygen is a commercial product in everyday use, and there is no more difficulty in obtaining it than in obtaining petrol. If oxygen could not be obtained by the general public, if it were a special preparation about which little was known, and only obtainable, perhaps, at a prohibitive price, by few people in the trade, it would not be unreasonable to raise an outcry against its use in competitions. The important fact for the motoring public to be well acquainted with in connection with the matter is that certain risks have to be taken. These are the risks of damaging the engine, injuring oneself, or (what is more serious) of injuring someone else. If, say, a serious explosion occurred on a competitor's car and several spectators were badly injured, it is conceivable that public opinion would be against its further use. But it is absurd to contend that the use of oxygen is not legitimate. It might even be that the development of the internal-combustion motor could be advanced by an increase in the proportion of oxygen already used in carburation, and it would, therefore, be a pity to prevent its use under racing conditions—the very conditions which are admitted to have done so much for the development of the motor car. If, however, it can be scientifically proved that the use of additional oxygen is no advantage, or has serious objections, then it would be wise, on the score of general safety, to prohibit its use. But, if oxygen in the engine is barred, someone will start using light gases in tires, and someone else will object, and nothing but Weybridge air will be permitted to be used. And thus there will be no end to the squabbling, but one of the chief uses for racing will be gone.

### Competition Gives Cheap Automobile Cab Fares to Parisians.

It is not true, says *Le Poids Lourds*, that there are as many taximeter tariffs at Paris as there are cabs. Nor is it correct that the cost of travel in all cabs is the same. As a matter of fact, there are exactly seventeen methods of valuing the price to be paid to cabby for a given trip. As all these tariffs are inferior to the official scale, the authorities have not, up to the present, thought it necessary to interfere. Now the Prefect of Police has decided on uniformity and has appointed a commission to consider its realization.

**M. F. Mievile, of Chichester, is not persona grata** with the police of the district, says the *Automotor Journal*, and they have openly threatened to trap him if they can, as he has shown considerable activity in warning others. Whenever he reaches the trap he and his chauffeur get out and push the car through.

## LETTERS INTERESTING AND INSTRUCTIVE

### How Can Water-cooled Brakes Be Fitted?

Editor THE AUTOMOBILE:

[848.]—In one of the accounts of the recent A. A. A. Tour which appeared in "The Automobile," I noticed a reference to the fact that not one of the cars carried such a thing as a water-cooled brake in distinction to European cars, and that on this account many of the competitors suffered from brake troubles while traversing that section of the route that lay through the mountainous part of Pennsylvania. Brakes overheated in frequent instances, and in some cases quite badly, while many of the cars had to halt on the way down some of the worst hills in order to give their brakes a chance to cool. The writer of the account that I refer to made mention of the fact that many European cars could have gone down far worse hills at a much higher rate of speed and without any particular trouble owing to their being equipped with water-cooled brakes. I have never seen such a brake on a car in this country, and would like to know if any American cars are built with them; also in what way do they differ from the ordinary type with which we are familiar from their almost universal use on cars made in this country.

Allegheny, Pa.

#### BRAKES.

So far as is known no American cars have ever been built with water-cooled brakes, though there are certainly a sufficient number of localities in this country that would seem to require them. Owing to the uniformly excellent surface of Continental roads, automobilists abroad are accustomed to run down hills at a rate of speed which is utterly out of the question here owing to the poor roads and numerous sharp turns that characterize most of our hill road building. But even were the latter not the case it would not be wise to run an American car down hill at the same rate of speed as is possible with a foreign car, as the provision of braking surface on the latter is usually far more liberal than designers allow here, in addition to the fact that water cooling is also provided.

While to the uninitiated a water-cooled brake may, from its very title, appear to involve considerable complication, this is far from being the case. It is customary to place a water-cooled brake on the countershaft of a side-chain driven car, this type still predominating to a large extent in Europe, though some makers have also applied them to the rear wheel brakes. They consist of the usual type of external contracting brake, the drum of which is generally made of unusually liberal dimensions from an American standpoint. The inner periphery of this drum is provided with a flange about 1-2 or 3-4-inch high, while the drum itself is entirely open to the air. A small supply of water is carried in a tank located wherever convenient on the chassis so the water may be fed by gravity, and a small bore tube, seldom exceeding 1-8-inch in diameter, is led to a point where the stream from it will discharge on this inner face of the drum already described. The flange prevents the escape of the water at the sides, while the centrifugal action set up by the revolution of the drum carries the water around every part of it in a thin sheet. On a bad hill the amount of heat generated is usually sufficient to evaporate the water about as fast as it is fed. Control is either by a separate pedal or by means of an auxiliary pedal attached to the regular operating pedal connected with this brake.

However, it would be unnecessary to install an entirely new system in order to apply water cooling to the average American car of to-day. The enclosing cases now generally employed on the rear wheel drums—the type most commonly employed here for both the running and emergency brakes—could be drilled with a small hole and tapped for the reception of the water-carrying tube, or a nipple on which to screw a union connection. These holes should be drilled on the inner face of the drums and a lead taken to each from a water tank which would not need to hold more than a gallon or two. We should think such a provision would be found of considerable value where a car is constantly used in a mountainous locality.

### Opinion Wanted on Overhead Valve Gearing.

Editor THE AUTOMOBILE:

[849.]—I have noticed that there is more or less of a tendency on the part of American manufacturers, not only to come around to the practice of placing the valves in the cylinder heads, which I consider the only proper method of design and years in advance of the outboard port type, but also to elevate the camshaft to the cylinder heads. I think there are now several instances of this kind extant among American cars, and I would like to know if you consider this an improvement of equally great importance as that of eliminating the extended valve-pockets.

Los Angeles, Cal.

#### VALVES AND CAMS.

No such sweeping comparison of the practice of operating the valves by means of tappets and push rods, as is generally employed, and that of using a superimposed camshaft, may be justly made, owing to the fact that designs differ and efficiency is not always a mere matter of adherence to a certain type. The end to be achieved in placing the camshaft in a superimposed position on the tops of the cylinders is primarily that of simplicity, and insofar as when properly designed this type does tend to greatly lessen the number of small parts, as well as to render the entire valve gear very accessible, it may be considered as the superior of the current type. However, this is largely a matter for personal opinion to decide, and the latter is, in turn, strongly influenced by the fact that the average designer finds himself constrained to turn out what the public wants and not what he thinks is ideal or fundamentally correct from an engineering point of view. The superimposed camshaft has much to recommend it, but it probably also has its disadvantages as well as other forms of construction.

### Apparently a Question of Carbureter Adjustment.

Editor THE AUTOMOBILE:

[850.]—As one of the subscribers of "The Automobile," I beg to ask you for information in regard to the car I am running, which is a 30-35 Simplex.

1.—It boils the water until it becomes very hot on high gear as well as on the low gear; everything in the circulation is clean and the pump works all right; circulation is perfect as well as spark perfect and exhaust and timing O. K.

2.—It will not climb hills on third or fourth gear without knocking, and if I retard the spark I seem to lose the power and have to go into second speed. I have made everything tight and have good compression and no misfiring and adjusted the carbureter so that the gasoline level is even with the top of the jet. I have tried making the hole larger and smaller and more and less air, but did not get satisfaction. It pulls very well on level but has not much speed to it. And when the car is not running and I throttle the engine down, it does not fire regularly. I know it has not the speed on hills it should have, as a 30-horsepower Packard can pass me on a hill easy.

Now, I want to know if I was to make the jet longer, so that the gas level would be about 1-16 of an inch below the top with the same size hole, or if I should make the hole larger owing to the higher jet, if it would give me more power. (The carbureter does not flood.) Or what would be the proper level for it on rough roads and hills so that it would develop the actual horsepower and take hills on high gear. The knock produced on hills does not seem like a loose bolt, but a sharp knock same as produced from an overheated engine after the switch is thrown off. I have double ignition and both are perfect, as well as the lubrication.

Greenwich, Conn.

#### SIMPLEX.

While from your description of the ailments your car has been laboring under, one would be led to judge that something serious was at fault, we think that proper investigation will show quite the contrary to be the case. To tell the truth, it would look as if the matter were merely another instance of "carbureter tinkering," no disparagement of the good intentions of the tinkerer being inferred from that. In all probability the carbureter got out of adjustment and the man in charge of the car, not succeeding in restoring it, set to work to change it according to his own ideas of what should be done. This,

unfortunately, is a more or less common practice and it usually has disastrous results, as the trouble goes from bad to worse until finally the entire car is condemned as worthless.

In the first place altering the size of the hole in the gasoline nozzle was a fatal mistake. If you had stopped to consider the matter before attempting any such questionable improvements you could hardly have failed to come to the conclusion that the size of that orifice was not a matter of guesswork with the makers, but had been determined by calculation and experiment and its correctness verified by actual experience, not with one, but with a large number of cars. As already mentioned, we think the events leading up to the present state of affairs have been such that you are now in a hopeless tangle and would not counsel making any of the alterations mentioned, such as lengthening the jet or changing the level in the float chamber. You have evidently been running the car with a very rich mixture, which would account for the overheating and the latter probably accounts for the knock mentioned as well. The Mercedes type of carbureter with which these cars are equipped is a very simple affair, but like many other things that are so extremely simple it takes one who is perfectly familiar with it to know how to adjust it properly. We should think that even a superficial examination of the jet of such a carbureter would have shown you what an amount of care had been lavished on it to make the nozzle opening accurate to a very small fraction of an inch and that this would have acted as a deterrent to such a radical change as altering this vital part of the device. As you are located within an hour's drive of the city, we should recommend submitting the car to the attention of Mr. Franquist at the factory and have no doubt that a little personal attention on his part will be sufficient to restore things to their normal condition and at a merely nominal expense. We have gone to an unusual length in answering your letter, as the case is one that comes to light so frequently—in fact, it is safe to say that ill-advised tinkering, with the carbureter in particular, has been the means of condemning more than one otherwise good car.

#### Continued Firing After Cutting Off Current.

Editor THE AUTOMOBILE:

[851].—Being a subscriber, I take the liberty of asking for a little information. I have a four-cylinder car and a few days ago when out for a ride I concluded to stop and shut off my engine for a few moments, so, after stopping the car, I opened the throttle and pulled out the plug but the engine kept on going forward without losing a stroke and continued to do so for a few minutes, when I closed the throttle and it ceased. The engine had been working beautifully and continued to when I started up again and I had cleaned the cylinders before I started in the morning, which, together with the fact that it ran forward and not backward (without losing a stroke) put the carbon theory out of my mind.

By solving this problem you will confer a favor on me and probably others as well.

G. A. SIMMONS.

Oakland, Cal.

There is little doubt but that the cause of the continued running of the engine lay in a particle of carbon in the cylinder that became incandescent. By "cleaning the cylinders," as expressed in your letter, we take it that you mean kerosene or gasoline was injected into them, or, at most, the piston heads were scraped through the valve openings. In either case the entire amount of carbon in the cylinders was not alone not removed, but some was taken away and some left and the latter was then in a more prominent position than it had been previously. That is, instead of being a smooth, uniform coating of carbon which does not readily become incandescent, it was divided into points, furrows or ridges, and injecting kerosene or gasoline might have had this effect the same as scraping, as it is well known that the deposit is hard in places and soft in others—or, to put it better, not so firmly attached.

The fact that the engine continued to run forward instead of backfiring and coming to a stop, as is usual in cases of pre-ignition due to this cause, does not necessarily refute the carbon

theory as you surmise. The incandescent portions may have been so located that the fresh charge did not reach them until compression was practically completed, as in close proximity to the exhaust valve, for instance; or, the pieces of carbon may not have been sufficiently hot at the moment the fresh charge entered the cylinder to ignite it, but at the end of the compression stroke its temperature may have raised sufficiently to do so. There are many things concerning the action going on inside the cylinder, about which many of the best versed engineers are still in the dark, and a thorough scientific investigation of these phenomena would constitute a valuable addition to the data now extant. The almost inconceivable rapidity with which operations follow one another inside the cylinder without conflicting is only coming to be realized as the result of the success of the high-speed automobile motor.

#### Non-residents Exempt in Nova Scotia.

Editor THE AUTOMOBILE:

[852].—In the issue of July 18 of "The Automobile," under the head of Letters Interesting and Instructive, I note that you state in part, in your reply to inquiry No. 823, regarding the conditions under which a car can be taken into Canada temporarily, "It is also necessary to take out a local license."

So far as Nova Scotia is concerned, your reply is in error, as the enclosed copy of the Provincial law will show, and I am also inclined to think that the other provinces extend the same courtesy; I am sure New Brunswick does. I refer you to Section 9 of the law, which is as follows:

"(9) The provisions of this section shall not apply to motor vehicles owned by non-residents of this province, provided the owners thereof have complied with any law requiring the registration of owners of motor vehicles in force in the state or province of their residence, and the registration number, showing the initial of such state or province, shall be affixed to such vehicles, substantially as in this section provided."

Wolfville, N. S.

B. W. M.

We are pleased to note your correction with regard to the eastern provinces in the matter of extending this courtesy to tourists, as while the matter of taking out a local license is a small one and the expense usually nominal, the annoyance attendant upon the process has doubtless proved more than sufficient to deter many tourists from extending their trips over the border. But while the reciprocal courtesy is extended by Nova Scotia and New Brunswick, as you state, we feel quite certain this is not the case with Ontario and Quebec, and it was concerning these provinces that our inquiry was directed. Due to its proximity to the most populous sections of this country, the Province of Ontario is the one into which American tourists most frequently desire entry with their cars and there the requirements are as stated in our issue of July 25, letter number 838, viz.—a nominal bond for the customs, fee \$5, and the regular license fee \$4, besides markers, etc.

Section 6 of the Quebec Motor Vehicle Law is a reciprocal provision exempting "the owner of a motor vehicle who resides in any other *Province of Canada*," which clearly brings tourists from the other side of the border within the purview of its remaining provisions. Hence the two most important Provinces of Canada require a license and registration regardless of how short the stay of the tourist may be. However, unless the law is not enforced in this respect, the same thing is true of a Canadian tourist bringing his car into this country, so that there is scant cause for complaint on either side.

Doubtless in the course of time the automobile traffic between the two countries will become so great that the necessity of doing away with the regulations now in force will be imperative and there certainly appears to be little reason at the present why this should not be the case. However, the Canadian Provinces which require compliance with their own laws despite the conformity of the entrant's credentials with the laws of his domicile, are no exception, as we have one or two shining examples of it right at home in the States of New Jersey and Pennsylvania, and forcibly illustrates the need of a national registry law.

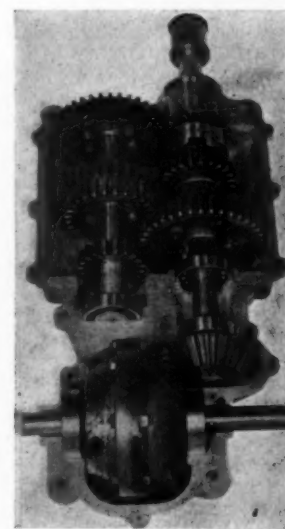


AS the result of its recent reorganization with a capital of \$200,000 and the acquirement of a complete plant at South Bend, Ind., the Tincher Motor Car Company has sprung into activity, so that instead of manufacturing a very limited number of cars, as has been its custom for the past five or six years, the Tincher is to be a factor in the American market for 1908. In many respects the car will remain unaltered, while in others novel features will be introduced, and though there are quite a number of the latter, the salient characteristics of the car are those that have always been identified with Tincher design and construction since its very inception.

In brief, the new Tincher is a 50-60-horsepower car equipped with 5 by 6-inch four-cylinder motor, band clutch, four-speed selective sliding gear, side chain drive, 127-inch wheelbase, standard tread, 36-inch wheels and

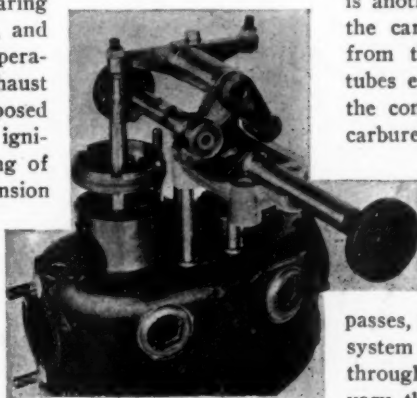
in the front and rear axles, gear set shafts, pinions and springs, as well as the main frame, which is further reinforced by filling the side channel members with ash strips of the latter extending from the forward end of the motor to the first cross brace supporting the gear-set. A peculiarity of this frame is the use of a manganese bronze casting across the forward end as an independent radiator support.

Other unusual features are to be found in the front axle, which is minus the usual spring seats. Instead the axle is drilled transversely at the places ordinarily occupied by the spring seats, and the single clip which suffices to hold the spring down upon a removable seating fitted on the axle is passed through. This form of construction is also followed in the rear axle, the latter also being distinguished by a 1 1-2 degree arch between the points of spring attachment, this serving to give the driving wheels an equivalent amount of outward inclination from the vertical, thus tending to prevent side slip. This axle is also dropped 2 1-2 inches immediately inside the hub bearings.



GEAR-SET AND DIFFERENTIAL.

tips the scales at 3,000 pounds. This weight has been attained by the liberal use of chrome-nickel steel, much of which is imported from Krupp, as well as the use of drop forgings wherever consistent with good engineering practice. The motor is distinguished by the use of rather an ingenious overhead type of camshaft driven through bevel gearing and a vertical shaft at the front, and having but a single cam for the operation of each set of inlet and exhaust valves which are oppositely disposed in the cylinder heads. Duplicate ignition is provided, one set consisting of a standard, self-contained, high-tension magneto of foreign make, which is forward of and across the front end of the motor. Chrome-nickel steel is employed in the crankshaft and camshaft, while the motor valves are a thirty-five per cent. composition of nickel steel; the former material is also used



VALVE-OPERATING MECHANISM.

In addition to the points of difference already mentioned in connection with the motor, there is another that is exclusive on the Tincher and has to do with the carbureter. At first sight this does not appear to depart from the conventional, but a closer view reveals four short tubes extending downward on the intake side. These open into the combustion chamber at one end and communicate with the carbureter at the other through a 1-8-inch tube to which each pair is connected in multiple. At the top of these tubes is a spark plug and at the bottom a ball check valve. This by-pass system, for such it is, is intended to supply the motor with sufficient mixture to run it idle, and it comes into full play when the throttle in the manifold, through which the main supply of fuel passes, is shut off. When the car is under way this supplementary system is not shut off, but only a fraction of the supply goes through it. It may be closed altogether or opened to the air to vary the mixture. The lubrication is taken care of by a belt-driven McCord force-feed oiler, having four independent leads.

## WORK OF THE LEGISLATIVE BOARD OF THE A. A. A.

AS was made evident by its report, submitted by Chairman Charles Thaddeus Terry at a recent meeting of the A. A. A. Executive Committee, held at the association's headquarters, 437 Fifth avenue, New York City, this board is one of the most valuable adjuncts of the national association. In the course of his report Chairman Terry told of the work on the board in these words:

The Legislative Board has kept in touch, through its chairman, with the legislative situations in the various States, to whose legislatures statutes relating to automobiles or the use of the highways were presented at their last sessions. While the general trend of legislation, as gathered from the data collected by the chairman of the committee, seems to be in the direction of reasonableness and a somewhat larger degree of fairness than heretofore, and to show somewhat of abatement of the unreasoning hostility to the automobile and its use because of their novelty, it is to be regretted that automobile legislation is even yet of so diverse and divergent a nature throughout the several States as to indicate an imperative demand for one of two things, to wit: either (a) the speedy enactment of a Federal law covering the field as far as may be; or (b) the enactment throughout the States of a uniform automobile State law framed upon the model of the best of the present State laws, with improvements thereon if possible.

The Board is prosecuting its work along both of these lines and seeking the earnest co-operation of the individual members of the board to those ends. It will be remembered that the Board prepared and introduced in Congress at its last session a bill providing for the Federal registration of automobiles, and that it is the intention of the Board to press that bill to passage if possible at the coming session of Congress.

This Board, after an examination of the authorities bearing upon the question of the constitutionality of such a statute, and after satisfying itself of the feasibility and constitutionality of such an act, drafted this bill, took it to Washington and had it introduced in Congress. It was referred by the Speaker of the House of Representatives to the Committee on the Judiciary.

In reference to a uniform State motor vehicle law, the Board asks that a copy of the draft of the uniform State motor vehicle law in its final and approved form be sent to each member with the request that each such member of the Board, in case the legislative situation in his State is such as to make it feasible, have the bill introduced into the Legislature of his State, and use his energetic efforts to secure its passage and signature by the Governor of his State.

The limits of such a report as this are too narrow to admit of the recitation of even a digest of the changes in automobile statutes throughout the country during the recent sessions of the legislatures. Such a digest may be prepared later and submitted for the use of the members of this association.

## "IN A FEW YEARS WE WON'T NEED SUCH STRICT AUTO LAWS"

HEREWITH is a communication sent to the editor of the Auburn, Ind., *Republican*, telling how one man changed his mind about the automobile. The story is told in a homely sort of style, but is typical of the experience of probably many another one who lives in the country:

EDITOR *REPUBLICAN*:

I had a visit from my old friend Smith last week and he certainly did me good on the auto question—but that's ahead of my story. Last Friday about noon I was washing up for dinner when Honk! Honk! and a great, big, red auto comes right up in my side yard. I yells to my wife, "Mol, get me the gun," 'cause I had promised myself to shoot the first one that came near my horses. I had met one or two with the bay mare and she wasn't so bad, but I just knew the others would tear up the ranch. Well, Mol couldn't find the gun (guess I'd left it in the barn) and in the meantime I discovered Smith was running the thing.

Now Smith was an old, old friend, but I was hot and called him down plenty. He took it pretty well, made a pass with his left hand and the red thing was still as a mouse. Then he climbed down; come over and as we shook hands said: "If you give your old pal a square meal, I'll tell you a story about motoring." Motoring, thinks I, what's that? Well, we went in and when things were going good I says "Well, George, what about your gol-dinged motoring?" I wouldn't admit it then but I was getting kind of curious; who wouldn't with a big, red one outside the winder right under your nose? Looked nice, too—for an auto—big, soft cushions and lots of room for your feet.

"Well, I'll tell you," says Smith. "You know I always had horses and down home we have worse places to meet autos than in this country; so for a long time I cursed the machines, same as you do. I never had any trouble though (me either, I admitted to myself), and one day, as I started to nall up the front fence, down the road

come a big machine. Now the kids was playing in the road, where they had no business to be, and they got scared and one falls right under the wheels; but the driver was game, runs the machine right in the ditch, jumps out and picks up the kid. Well I tell you that changed my mind some, 'cause people told me that those automobile fellows would run you down and never stop. Well, I thanked him, and when he wanted to go he found that in running in the ditch he had busted a tire. I was sorry and helped him all I could, he, meanwhile, telling lots of things. Next time I went to town I brought out a can of gasoline and it was not long before I had use for it, about two days I think, when some one comes up and I sees it is the driver who saved the kid. He was out of gasoline and wanted me to drive to town for some. "I'll go you one better," says I, and got him the can. He poured it all in the machine and says, "How much?" I says, "Take me and the missus to the top of the hill and back and we'll call it square." "Take the kids, too," says he, and we did. Well, I got interested. That was two years ago. Now I've got a machine and am more interested and I don't have any trouble with horses when their drivers do half what's right."

"Well, Smith," says I, "I'll admit you have as much right on the road as I—" "There you're wrong," says he. "I don't, the law limits the machine in every way, but I don't kick. It won't always be that way. In a few years we won't need such strict automobile laws, but we may need some for the horse drivers who block the road unnecessarily. Come we'll take a little spin."

Take a little spin! Say, we took what Smith called a little spin; went up to Auburn then down to Sacramento and back and I tell you motoring is all right. It was an eye-opener for me. Instead of continual trouble with horses we had none; instead of continual trouble with the machine we had none. I changed my mind and when I get some dough saved up, it's "motoring" for me.

A SUBSCRIBER.

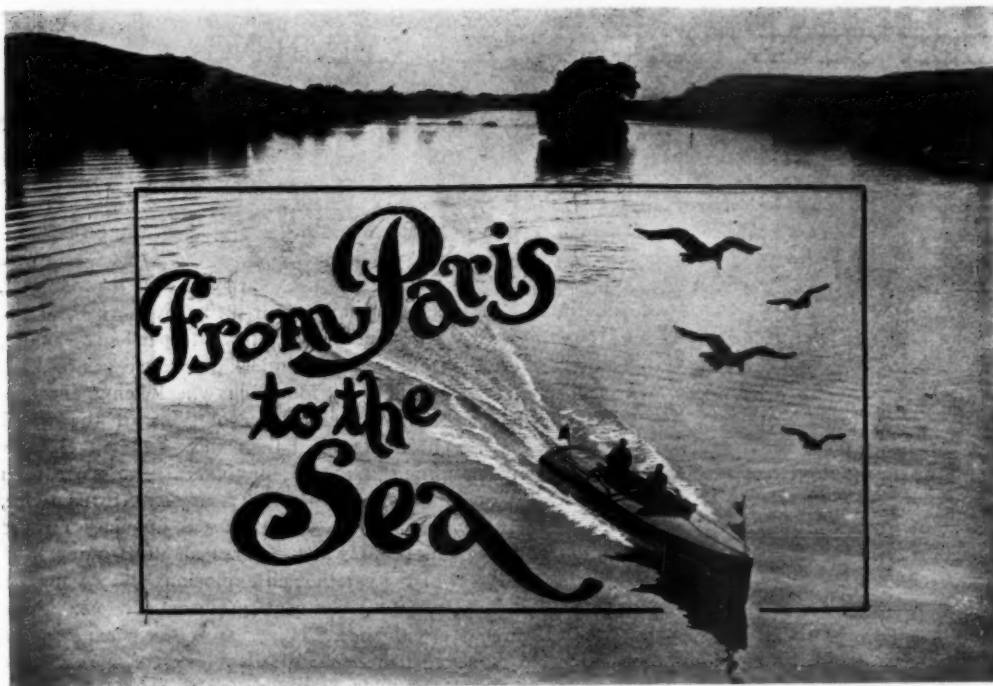
## GOOD ROADS AND GOOD WILL OF FARMERS

EVERETT, WASH., Aug. 2.—The Snohomish County Good Roads Association has been organized. This is largely an automobile organization. The following officers were elected: President, Dr. W. C. Cox, Everett; vice-presidents, E. M. Stephens, Monroe; William Hulbert, Everett; W. C. Brokaw, Edmonds; secretary, Elmer E. Johnston, Everett; treasurer, W. G. Swallow, Everett. The initial effort of the association was to assist in the entertainment of the State Press Association, and the editors were taken about for a spin to various points of interest.

The association intends to take an active part in the betterment of everything in the good roads lines, and hopes to cement

a spirit of friendship between the auto class and farmers. It will urge its members to give proper regard to the rights of the farmer and to do everything possible to save him from annoyance and danger in the fear which his horses may have of motor vehicles. The association also went on record as favoring a State law to license all auto drivers and owners, with penalties for the violation of regulations.

Good roads building in Washington State has been receiving an increased amount of attention in the past year and more, and it is not improbable that there will be other county associations formed similar to the one just organized here.



PANHARD-TELLIER ON HER WAY DOWN THE SEINE, FORTY MILES FROM PARIS.

TROUVILLE, FRANCE, July 28.—*Panhard-Tellier* has won the Paris-to-the-Sea race, so successfully revived this year by the Navigation Syndicate after a season of languishing health. Apart from accident, it was a foregone conclusion that Tellier's boat, engined by Panhard-Levassor, would repeat her victories at Monaco, and no one is surprised at the result of this run to the sea. With its numerous locks and its miles of serpentine stream, it was recognized as impossible to hold a through race from Paris to Havre. The committee, therefore, which boldly undertook to atone for the 1905 farce, when one solitary boat covered the distance in isolated dignity, organized a race at Paris for the Paris cup, and a second speed test from Rouen to Trouville, with stages at Caudebec and Havre. The portion of the journey from the Parisian suburb of Suresnes to Rouen was a cruising event for all classes of boats.

Five racers took the start—namely, *Panhard-Levassor* and *La Rapière II*, both with Panhard engines. *Lorraine-Dietrich*, *Itala H*, owned by Henry Fournier, and the *Mercedes*, engined by the German firm but with hull built by Pitre. Twenty-one boats made up the cruiser class; there were three hydroplanes and two were classified as seagoing vedettes.

Some disorder marked the start of the race from the Auteuil Viaduct owing to the presence of a large fleet of pleasure boats, united to watch the arrival of the winners in a long-distance swimming match. *Panhard-Levassor* proved the winner in the run down stream to Suresnes bridge, her time being 11:20. Her smaller sister, *Rapière II*, came second in 12:6, and *Lorraine-Dietrich* third in 12:9. Owing to the crowded state of the river only the *Panhard-Tellier* made a good start. The *Lorraine-Dietrich*, with three separate Dietrich motors and three propellers, was unable to compete on equitable terms with the Panhard craft, and Perignon, her owner and pilot, issued a challenge for a special race. Henry Fournier made the fastest time in the cruiser class with *Itala II* in 19:10. Mlle. Noilhan's *Panthère*, with Bianchi engine, coming second in 21:22.

Running down stream from Vernon to Elbeuf and from Elbeuf to Rouen was a happy pleasure party, each boat wandering along at the fancy of its crew, tying up for lunch at the picturesque waterside villages abounding in this part of Normandy, or anchoring in a shady place, while every man aboard splashed in the clear depths of the placid Seine.

Starting out from below the busy Cathedral City of Rouen,

seasickness. Both *La Rapière* and the *Panhard-Tellier* broke their own records, the latter boat covering the distance at the rate of 32 miles an hour, in 17:46. *Rapière's* time was but 61 seconds slower, or 18:47. Cruisers generally made fast time, but owing to thinly represented classes little comparison could be made between them.

#### "DIXIE" DEFEATS FAST BRITISH BOAT.

SOUTHAMPTON, August 2.—America's champion motor boat *Dixie* has won the Harmsworth international Championship Cup in Southampton Water against Britain's three best representatives. *Dixie*, who carried her owner, E. J. Schroeder, of the Motor Boat Club of America, and was steered by Capt. Pierce, covered the 35-mile course in 1:15:44 3-5, equal to an average of 27.78 miles an hour. *Daimler II*, the fastest British boat, was second in 1:17:25 2-5.

Perfect weather conditions prevailed when the start was given, and, although *Dixie* took the lead at once, she was closely followed by *Daimler II*. Before the first leg was covered the American craft began to pull away from her rival, and gradually increased the lead to such an extent that, barring accident, her victory was certain. Without a falter from beginning to end, the *Dixie* finished with a lead of three-quarters of a mile, rousing cheers, the hooting of horns and the dipping of the Union Jack by the entire fleet greeting her as she crossed over the line. *Daimler II* ran well, but never had the same speed as her rival from across the Atlantic.

There is general regret that the French boats *Panhard-Tellier* and *Rapière II* were not able to meet the *Dixie*. The entries of these two boats were made after the official date of closing, and, on their acceptance being referred to the Motor Boat Club of America, that body refused its sanction on the grounds that there had been ample time to enter, and failure to do so was not its fault. *Panhard-Tellier*, which is certainly the fastest motor boat ever built in Europe, has beaten *Daimler II* in every contest. In the 200-kilometer Championship of the Sea at Monaco last April, she traveled at an average of 34.77 miles an hour. *Dixie's* fastest time was in a 15-mile race on Lake Worth, when she averaged 32.51 miles an hour. Owing to the immediate return of the American boat to participate in races on the Hudson, it is not likely that she will meet the crack French boats this season, as had been hoped by motor yachtsmen.

there was no loitering on the run to Caudebec. Panhard carried off the main honors with *La Rapière II* first in 1:25:40 in Series I, and *Panhard-Tellier* first of its class in 1:20:17. The *Mercedes*, with a modest 40-horsepower engine dating back to 1904, came in second in 2:1:6. *Nautilus-Mutel* obtained first place in the 6 meters 50 class; *New Trefle III*, a Monaco champion in 1904, was first in the second series, and Vedrine's *Lorraine* winner in the fourth class.

No change occurred in the positions of the racers as the result of the second day's race ending at Havre, the Panhard boats remaining at the head of the racers and *Nautilus-Mutel* the fastest of the cruisers.

The fourteen kilometers open sea run from Havre to Trouville was held under almost fresh water conditions, to the satisfaction of lovers of high speed and "seamen" afraid of

## A COMMON SENSE TALK ON HILL CLIMBING\*

ONE of the great feats which is credited to most every car by its owner is, "She will take any hill, within most any radius, on 'high,'" etc. It is certainly necessary for a car to get over any hill on the road, and it is, no doubt, a pleasure to surmount it on high; but, whether it is advisable to do so is a question answered in some cases immediately by the breaking or straining of one of the parts, or later by the poor condition of all the parts of the mechanism that is an inevitable consequence.

The most important factor in climbing hills fast certainly is in having enough motive power in proportion to the weight of the car. It does not follow, however, that a high powered car should climb hills on the "high" as easily as a light runabout with a good deal less power; first, on account of the difference in weight to be dragged, and mainly on account of the relation of the speed of the motor to the driving wheels. High powered cars are generally geared much higher than cars with smaller motors. This is done so as to be able to run fast on the level without speeding the motor excessively. The average relation of gearing is about three to one of the high on cars having twenty to twenty-five horsepower. In cars of thirty to forty-five horsepower we find the average "high" gear to be about two-and-one-half to one. Still higher powered cars, say from fifty to sixty horsepower, have a ratio which is often less than two to one, and racing machines are generally geared one to one on high, driving wheels making same speed as the crankshaft.

We speak of these ratios as the average, but there are many high powered cars with lower gear ratios when built for special uses, or when they are air-cooled, etc. When, for example, the ratio three to one is spoken of, it means that the motor shaft turns three times in order to turn the driving wheel once. When figuring the ratio or the speed of the motor when traveling a certain mileage per hour, we must necessarily consider the size of the driving wheels, because when a car mounted on thirty-four-inch drivers has a ratio of three to one, its motor runs slower than one of a car mounted on thirty-two-inch drivers with a three to one gear, both making the same speed. Let us consider what the ratio of gearing has to do with hill climbing abilities of automobiles. The explosions in the cylinders are really pushing the car up the hill. When the motor is allowed to run fast while the car goes slow, the explosions occur often, the flywheel will maintain a uniform speed, and the car will mount easily and without jerking. When, however, the motor turns over slowly, the flywheel not being heavy enough to advance the

car steadily between the intervals of the explosions, the car will jerk at each explosion, and all driving and power transmitting parts will be under a strain for which they were really not designed and are not able to stand very long.

To impress the importance of this subject on your minds, we will figure just how far one explosion in one of the cylinders of a four-cycle, four-cylinder motor geared at two to one ratio, must push a car mounted on thirty-four-inch drivers, and, at the same time, how many revolutions, or at what speed per minute, the motor runs when making sixty miles per hour.

The circumference of a thirty-four-inch wheel being approximately nine feet, it takes about 587 revolutions of the wheel to cover one mile. The motor must then make 1,174 revolutions per minute when running a mile a minute. In this car each cylinder makes one explosion while the crankshaft turns twice, and we get four multiplied by 587, or 2,348 impulses on the motor shaft in one mile, and which figures about two feet and three inches of travel of the car to each explosion. Supposing we negotiate a hill with a 33 1-3 per cent. grade, which means one foot rise in three feet advance. If we ascend it with the car each explosion must push the car with all its weight, and against all the friction, two feet and three inches ahead, and consequently raise it one-third of that distance, which is nine inches. Consider what a tremendous strain there must be on all power transmitting parts, especially when going slowly, for then the flywheel at the speed it turns is not heavy enough to carry the car steadily ahead and upward. Consequently, we believe it to be advisable to climb hills on the lower speeds. In speaking of the ratios of the gears a simple way of easily obtaining them on any car will be of interest. They can be figured, but it requires counting teeth on sprockets or bevel gears, etc., usually enclosed, and always full of grease. Engage the clutch and the gears of which the ratios are to be determined. Mark the driving wheel at its lowest point, and the floor with chalk. Also mark the flywheel so as to be able to count its revolutions. Then push the car, counting the revolutions on the flywheel until the chalk mark on the driving wheel is again at its lowest point. The ratio will be the number of turns of the flywheel to one of the driving wheel. If, for example, the flywheel has turned two and one-quarter times, the ratio is two and one-quarter to one. By measuring the distance between the chalk marks on the floor in feet, and dividing it into 5,280, will give the number of turns the driving wheels make in one mile. Multiplying this quotient by the number of turns made by the flywheel will give the number of revolutions the motor makes in one mile.

\*Read before the Long Island Automobile Club by Louis T. Weiss, Chairman Technical Committee.

## BRITISHERS WILL ENCOURAGE USE OF ALCOHOL FUEL

LONDON, July 24.—After twelve months musing the British Motor Union has pronounced in favor of alcohol as a substitute for gasoline. In view of the increasing cost of the present fuel they recommend that steps be taken to remove the restrictions on alcohol, that a prize be offered for an essay on this fuel, and that trials be held to test the respective merits of alcohol and gasoline. Regarding other possible solutions, the Union recommends that the use of heavier spirit be encouraged, that efforts be made to modify existing restrictions on the use and distribution of alcohol, competitions be held for kerosene carbureters, and that the use of benzine be encouraged. The government tax on alcohol is at present the greatest difficulty in its adoption as an automobile fuel, but is thought that the revenue authorities' objections can be overcome by the use of an efficient, and at the same time inexpensive, denaturant. The point

that is chiefly emphasized in the report is the fact that there are many possible alternative fuels that may be employed satisfactorily, but all of them are subject to the same disadvantage of being limited by natural causes, just as are present-day fuels, such as gasoline. This has caused a hard-and-fast line of classification to be drawn between alcohol, which is the one fuel of absolutely unlimited production, and those which are limited, these again being subdivided according to whether their origin is coal or petroleum. As a means of obtaining immediate relief, the use of slightly heavier fuels, such as the gasoline imported from the East Indies, is recommended, while emphasis is laid on the fact that the boiling point, rather than the specific gravity, should be followed as a standard in judging its fitness for fuel purposes, since the real criterion is one of boiling point or capability of complete evaporation at normal or below normal temperatures.

# EUROPE'S GOOD ROADS RESULT OF SKILL AND LABOR

By Cortlandt Field Bishop, Chairman, A.C.A.

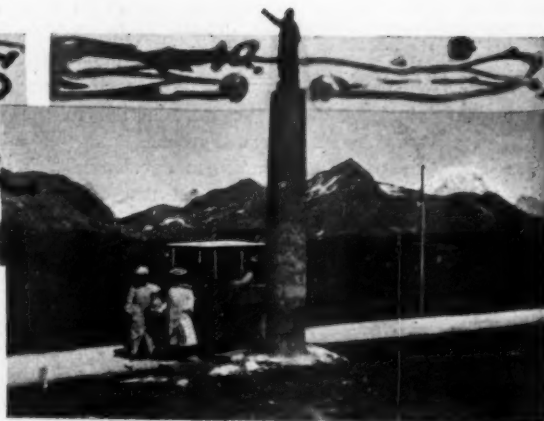
THERE is a vague impression among American automobilists that Europe's magnificent road system is a glorious heritage handed down from generation to generation and enjoyed by father and son without expenditure of either time or money. There is an enormity of incorrectness in the supposition, for primarily Europe's roads are not all good, and where they have been developed to a stage worthy of the designation perfect it has been by the employment of the highest engineering skill and enormous sacrifices of men and money.

France has won for herself the enviable position of leader in the world's national highways, with a system of roads which far surpasses those of her neighbors and by which, in comparison, the highways of America are a mere scratching on the surface of a continent. Naturally France has profited—and profited largely—by the work of earlier generations. Harking back to the Roman occupation, there were more than thirty thousand kilometers of road in use throughout Gaul, about four thousand of which formed the first four great highways radiating out from Lyons in the Rhone valley to the Rhine and the Meuse valleys, Amiens, Bordeaux and Marseilles.

Under Philippe Auguste a system of arrangement and classification was put into use which, although modified and renamed, has never been changed since the twelfth century. The delightful highway along the right bank of the Loire—known of every American automobilist who has traveled in France—was his special work, while the Route de Bretagne was among his valuable donations to the nation. Louis XI., who created the *Service des Postes*, Louis XII., François I., Henry II., and Charles II. all carried forward the work of improving and extending the national roads. Henry IV., that strange esthetic monarch, passed the law making compulsory the planting of trees by local authorities along the national highways. Colbert, Louis XIVth's most distinguished minister, put up the first mile stone, thus laying the foundation of a system by which in our days all who run can read. Napoleon, engrossed with the military conquest of Europe, found time to attend to the development of the *Grandes Routes Nationales*, thereby leaving a monument of far more durability than his most brilliant military prowess.

## French Nation Pays Liberally for Road Maintenance.

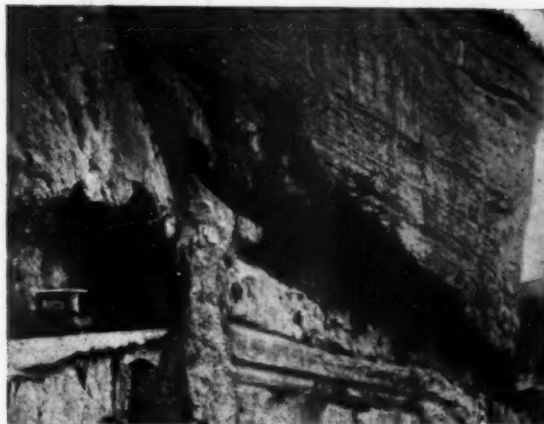
But the work of the present generation is in no way inferior to that done under the old régime, when the peasant did his *corvée* or forced labor on the building and upkeep of highways. Taxation is the modern *corvée*, more equitably distributed over the whole nation; that it is not a light burden is shown by a reference to the official figures of the cost of road maintenance in France for one year. In 1893, according to official reports, the sum of about thirty-two million dollars was expended in the maintenance of the four national systems of highways, namely national roads, departmental roads, communicating paths and country lanes. This large outlay was for road material and labor only; an additional expenditure of from 30 to 50 per cent. must be added for the maintenance of watercourses and sidewalks, the planting of trees and for general administrative expenses. The annual average cost of a kilometer of national road is \$155; departmental roads cost \$120 per kilometer; the humblest country lanes, designated *chemins vicinaux*, are allotted the sum of \$40 per kilometer for their annual upkeep and repair.



HIGHWAY ACROSS THE GREAT ST. BERNARD.



ROAD SKIRTING PRECIPICE IN FRENCH ALPS.



TUNNELED THROUGH SOLID ROCK NEAR AURILLAC.



EASY GRADE MOUNTAIN ROAD IN SAVOY.

To thoroughly appreciate the value of French road building and at the same time enjoy automobiling in its most exhilarating form it is necessary to explore the mountain districts. Mountain climbing in an automobile is not yet overdone—indeed, it is more correctly in a robust infancy. The Massif Central, with its Domes of Auvergne, forms an introduction to the wilder and more precipitous slopes of the Pyrenees and the French Alps. Here, on highways of such uniform excellence that it was possible to hold an international speed test around snow-capped peaks, and where a special speed track would have been created but for the distance from the capital, there is a magnificent region to be used as a preliminary training ground for the automobile lover of mountain scenery.

The Pyrenees, of recent years increasingly popular with automobilists, present examples of road engineering only slightly inferior in skill to those of the French Alps, while for historic interest, the preservation of ancient customs and grandeur of nature they appeal as forcibly to thousands as their better known rivals on the southeastern frontier.

#### Mountain Automobiling Fascinates the Cool Headed.

Alpine automobiling demands two conditions—perfect road surfaces and a car that leaves no room for fear regarding its power to pull or ability of its brakes to hold on any grade. Naturally a cool head and a certain ability as an automobile driver are requisite if a trip through the French Alps is to be enjoyed, for although road conditions are made as safe as it is possible for mountain roads to be and the modern automobile rarely fails, there is always a smack of danger on mountain ledges overhanging yawning precipices. Under the charms of nature, however, the sense of danger in mountain automobiling is transformed into an exhilaration unequalled by any other sport.

It is in the French Alps that the finest examples of engineering skill in road building are to be found. The St. Bernard, started by Napoleon, the Petit St. Bernard, the Galiber Pass, the Lauteret Pass, eight thousand feet above the sea and only open two months in the year, the Liorn, the longest road tunnel in France, are a few of the better known examples of skill in road building, the counterpart of which can only be found in America in some of our most daring pieces of railroad work. As an example of how a steep mountain side is climbed, the winding road near Aix-les-Bains, an illustration of which is given, is an excellent piece of work, the road serpentine up the hill side in a series of easy grades, easily climbed by machines of ordinary power. The highest mountain passes, built primarily for military use and only open to traffic a few months in the year, show an enormous expenditure of skill and labor in carving out a roadway where nature seems to rise up as an insurmountable barrier.

#### SOME EXTREMES THAT ARE MET WITH.

Just to show how far some people will carry a hobby, an instance is recalled of a new owner who made it a custom to take out the spark plugs of his motor and treat them to a careful brushing with gasoline almost as frequently as he lavished the same attention on his teeth—and as he was a careful individual, this was a little more often than the Tennessee mountaineer who was near the three score and ten mark before he saw a man "filing his teeth" for the first time. While such treatment naturally did no harm, it would have been just about as efficacious to have polished the hoofs of a good horse every morning with a view to increasing its speed. There is sufficient necessary work to do about a car without taking the time to put in a lot of useless strokes. It is said that, in the navy, where there are so many men on board a ship, that it is difficult to keep them all busy, work is done by one part of the crew and undone by another in order that a third section may do it over again. The man who takes care of his own car, whether from a desire to economize or from a liking for the work, has no surplus time in which to follow such a round-about way of doing things.

#### THE CHAUFFEUR'S DREAM.

By A. D. HARD, M.D., MARSHALL, MINN.

The stillness of a Summer night;  
Soft zephyrs cool, the moon's pale light,  
Combined to soothe in sweet repose,  
A weary Chauffeur, and his woes,  
At close of day.  
A long day's run, his muscles sore,  
Reclining on the garage floor,  
To catch a moment's fitful sleep,  
Forget his aches in slumber deep,  
Begrimed he lay.

Sweet dreams: Unfettered flights of mind,  
In which we thrust hard facts behind,  
And soar in fancy, far and fast,  
Or own the earth, and spurn the past—  
'Till sleep doth break.  
And thus the Chauffeur, as he lay,  
In restful peace at close of day,  
Was led by Dream-King's fairy hand,  
Down where the Sea doth kiss the land,  
His wish to make.

He wished that from Utopia far,  
Would come for him a perfect car.  
Free from all troubles on the road,  
That add to life a weary load,  
And pleasures dim.  
The Dream-King bowed; And off the strand,  
Appeared a ship from foreign land.  
Upon her deck in bright array,  
The Chauffeur's ideal auto lay,  
Consigned to him.

A limousine, its fittings fine;  
Each graceful curve and beauty line  
Bespoke the perfect master's art,  
To charm the eye with every part—  
It was "A dream."  
The wheels were shod with gauzy air;  
Pneumatics, but no rubber there.  
No fear of blow-outs, cuts and leaks,  
No gum-elastic fills, or freaks  
That perfect seem.

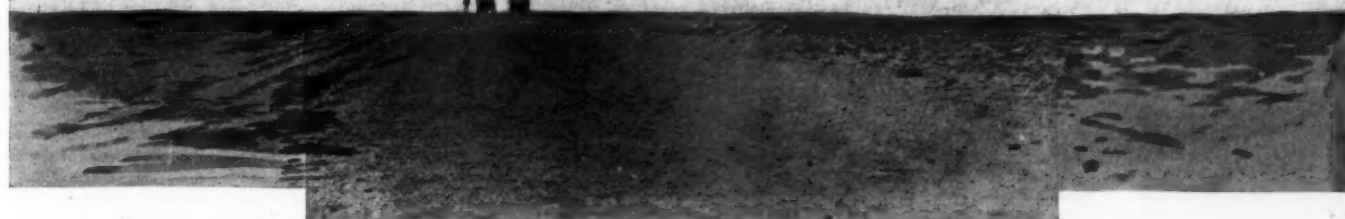
The motor was a "Mighty Six,"  
As silent as the River Styx:  
No valves, no gears, no wearing parts;  
The triumph of mechanic arts—  
Perfection kissed.  
Ignition! 'Twas a gleam of joy,  
Bereft of all that might annoy.  
The spark, along its wireless track,  
Sped swiftly to each plug and back,  
And never missed.

And lubrication! Oh, how fine:  
For dirty oil "Dark Africa's" mine  
Had given man a secret rare,  
And liquid-graphite, clean as air,  
Made smooth each part.  
No pump, nor syphon, fin or fan,  
To curse with trouble mortal man:  
The Chemist, delving science deep,  
Had solved the cooling problem, cheap,  
A simple art.

Thus, one by one each trouble past,  
The perfect car appeared, at last,  
To charm the Chauffeur's longing heart;  
With poetry of motion's art—  
But, 'twas a dream.  
The wind-slammed door the Chauffeur woke,  
He gazed around, but no word spoke.  
His dirty, crippled, ungroomed car,  
Stood as it stopped, from journey far.  
THIS was "no dream."

The Autodrome Commission of the Imperial A. C. of Germany is at present studying the plans of a piece of land, situated near Aix-la-Chapelle, which has been taken into consideration for the proposed motor track. The convenient position of the Aix as one of the most frequented points in Continental railway traffic is one of the most weighty reasons brought forward by the supporters of a course in the Eifel district.

## From Peking To Paris



CROSSING THE SEVEN HUNDRED MILES OF DREARY WASTE KNOWN AS THE DESERT OF GOBI.

PARIS, Aug. 1.—Paul Pons, who started as a Peking-Paris tourist with the small caravan which turned its back on the eastern city a couple of months ago, has returned to Paris with bitterness in his heart. Pons mounted a Contal tricar, a robust little machine very ingeniously fitted up for the hard work across wild wastes, which, after a few hundred miles, found itself too heavily loaded in proportion to its horsepower, and had to withdraw. Reports which came in from the party declared that the Contal had been relieved of a large part of its load, but as it was still unable to continue as rapidly as the others, it was finally left behind. Pons swears that the other drivers broke their promise to keep all together, and when he was in difficulties left him behind and made no attempt to find him. He trailed along in their wake until his gasoline supply was exhausted; then, having neither food nor water, he was obliged to abandon his machine and make for Kalgan, 180 miles away, partly on foot and partly by occasional lifts from camel caravans. When the main party reaches Paris Pons declares he will be there and will express his opinion without reserve.

Prince Borghèse, who has a machine of much greater power than any of his competitors—a 40-horsepower Itala, with runabout body—has left the De Dions and Spyker, has pushed ahead, is now at Berlin, and will reach Paris this week. Cormier, the De Dion driver, has telegraphed to Paris that the Italian car has left the route mapped out by *Le Matin*, organizer of the tour, and is pushing on over the district the driver considers most suitable. Replying to this protest, the organizers declare that the road is absolutely free in the Peking-Paris run, and that if a competitor wishes to leave the marked-out course, with its gasoline stations, he is at liberty to do so at his own risks. The performance is not a race but a tour, the only advantage to be gained by first arrival being that of additional publicity.

Latest reports from the two

De Dions piloted by Cormier and Collignon are to the effect that they have reached Petropawlowsk, and should be in Paris ten days later than the Itala, their mileage at that time being about four thousand, leaving only two thousand miles to be covered over daily improving roads. Daily journeys at this stage of the tour average 100 to 150 miles, according to the condition of the country. As the Ural mountains are approached traveling again becomes difficult, but none of the hardships encountered in China or on the dreary wastes of the Gobi desert are met with.

The Spyker, the only Dutch car which entered the test, is still under repairs at Tomsk, in Siberia. When his magneto has been put into working order it is the intention of Godard, the driver, to return to Tchermkovo, the point where he boarded the Trans-Siberian railroad, and continue the journey under his own power, as stipulated in the rules governing the tour.

All the cars taking part in the 6,000-mile transcontinental run are stock chassis with special fittings for the herculean task they have undertaken; Itala has 40 horsepower, the two De Dions are 16-20, and the Spyker is registered as a 24-horsepower model. The French and the Dutch cars have open touring body crowded with the necessary equipment for camping out, carrying extra supplies of gasoline, tires and oil. With its runabout body, having a large rear platform available for big capacity gasoline tank and reserve tires, the Itala has had a distinct advantage over its rivals, its load in proportion to horsepower being very low compared with the others.

Critics have tried to belittle the tour on the ground that liberal aid has been given by camel teams and groups of natives. While it is true that in many places the heavily loaded automobiles had to be helped out by external means, especially in the undeveloped districts of Asia, reports from tourists with the party, and particulars furnished by Pons, show that the drivers are en-



ARRIVAL AT THE GATE OF OURGA IN NORTHERN CHINA.



CHINESE TROOPS GUARDING CARS AND TRAVELERS.

titled to all honor for their plucky performance, and that the automobiles have proved themselves capable of passing over every class of country, with or without roads.

### FATAL ACCIDENTS STOP FRENCH CRITERIUM.

PARIS, Aug. 3.—As the result of two automobile accidents resulting in the loss of six lives, the Minister of the Interior has telegraphed to the Prefect of the Gironde ordering him to stop the Criterium of France tour organized by the A. C. F.

On the third stage of the journey, Bordeaux to Nantes, to be covered at an average speed of twenty-one miles an hour, car No. 34, a Martin & Lethimonnier, manned by Sergessmann and Perrett, and carrying two Parisian press photographers, Meurice and Lequin, broke down and smashed into a tree. Lequin was killed and the others slightly injured.

A little later, and only a short time after the first accident, one of the competing cars and a touring car containing Bordeaux newspaper men on their way to inquire about the first disaster, came into violent collision and were reduced to wreckage. Mathieu and Metayer, driver and mechanic of the competing car, were killed on the spot. The two men in charge of the touring car died before reaching hospital, and one of the newspaper men expired immediately on admission.

The Minister's interdiction refers only to the Criterium, and not to the Press Cup race to be run on a guarded course near Lisieux. The contest, which was the proposal of the Marquis de Dion, a strong opponent of racing, was to comprise the Criterium, a four-day touring event, on a daily schedule varying from 19 to 25 miles an hour, and a final speed test on a limited supply of fuel, known as the Press Cup. Whether the final race will be run depends on the decision of the A. C. F.



ALONG THE ROAD NEAR THE GREAT CHINESE WALL.

## THE AUTOMOBILE CALENDAR.

### AMERICAN.

#### Shows and Meetings.

- Oct. 24-31.....—New York City, Grand Central Palace, Eighth Annual Automobile Show, Automobile Club of America and the American Motor Car Manufacturers' Association.
- Oct. 31-Nov. 7...—New York City, Madison Square Garden, Eighth Annual Automobile Show, Association of Licensed Automobile Manufacturers.
- Nov. 30-Dec. 7...—Chicago, Coliseum and First Regt. Armory, Eighth Annual National Automobile Show, and First Annual Commercial Vehicle Show, National Association of Automobile Manufacturers.
- Dec. 14-21.....—St. Louis, Mo., Jal Alai Building, Second Annual Auto Show, St. Louis Automobile Manufacturers' and Dealers' Association.
- Dec. 28-Jan. 4...—New York City, Madison Square Garden, Importers' Salon. C. R. Mabley, secretary and manager.
- April 6-11.....—Buffalo, Convention Hall, Motor Boat and Sportsman's Show. D. H. Lewis, manager.
- Sept. 7.....—Minneapolis, Minn., State Fair Race Meet of the Minnesota State Automobile Association.

#### Races, Hill-Climbs, Etc.

- Aug. 9.....—Algonquin, Ill., Hill Climb, Chicago Motor Club and Chicago Automobile Trade Association.
- Aug. 9-10.....—New York City, Brighton Beach Track, 24-hour Automobile Race, United States Motor Racing Association.
- Aug. 17.....—Newark, N. J., Olympic Park, Carnival of the New Jersey Automobile and Motor Club.
- Aug. 31.....—Philadelphia, Race Meet under auspices of the Quaker City Motor Club. (Track will be either Point Breeze or Belmont.)
- Sept. 2.....—Harrisburg, Pa., Race Meet of Motor Club of Harrisburg (probably Middletown track).
- Sept. 2.....—Chicago, Harlem Track, Race Meet under the auspices of the Chicago Automobile Club.
- Sept. 2.....—Bridgeport, Conn., Labor Day Hill Climb, Sport Hill, Bridgeport Automobile Club.
- Sept. 5.....—Chicago, Cedar Lake Economy Run, Chicago Motor Club and Chicago Automobile Trade Ass'n.
- Sept. 7.....—Hartford, Conn., Hill Climb, under the auspices of the Automobile Club of Hartford.
- Sept. 14.....—Albany, N. Y., 95-mile Road Race, under the auspices of the Albany Automobile Club.
- Oct. 21.....—St. Louis, Mo., International Aerial Race of the Gordon Bennett Prize, Aero Club of America.

#### Motor Boat Races.

- Aug. 13-15.....—Chippewa Bay, St. Lawrence River, Gold Challenge Cup Race, American Power Boat Ass'n.
- Aug. 22.....—New York to Jamestown (Va.), Annual Cruise, American Power Boat Association.
- Sept. 2-6.....—Jamestown (Va.) Exposition Motor Boat Races.

### FOREIGN.

#### Shows.

- Sept. 28-Oct. 7...—Denmark, Copenhagen International Automobile Show.
- Nov. 11-23.....—London, Olympia Motor Show.
- Nov. 12-Dec. 1...—Paris, Exposition Decennale de l'Automobile, Grand Palais, Esplanade des Invalides, Automobile Club of France. Applications for space close August 15.
- Jan. 18-Feb. 2...—Turin, Italy, Fifth International Automobile Exposition, Palace of Fine Arts, Valentino Park, Automobile Club of Turin.

#### Races, Hill-Climbs, Etc.

- Aug. 23.....—Belgium, Ostend Motor Boat Meeting.
- Aug. 11-29.....—France, Coupe de Auvergne.
- Sept. 1-2.....—Italy, Brescia Circuit, Florio Cup. A. C. of Italy.
- Sept. 15.....—Austria, Semmering Hill Climb, Austrian Automobile Club.
- Sept. 15.....—France, Chateau-Thierry Hill Climb.
- Oct. 1-15.....—Paris, Electric Vehicle Competition, Automobile Club of France.
- Oct. 20.....—France, Gallon Hill Climb.
- Nov. 1-15.....—France, Volturette Contest near Paris.
- May 16, 1908....—Sicily, Targa Florio, Automobile Club of Italy.
- July 14, 1908....—Paris to London, Aerial Race.

## THINGS DOING AMONG THE BUSY CLUBS

### New Jersey Endurance Run Winners Receive Prizes.

NEWARK, N. J., August 5.—Contestants who completed with perfect scores the three-day endurance run of the New Jersey Automobile and Motor Club, held May 30-June 1, received their awards last Thursday evening in the shape of a certificate signed by the officials of the contest and a gold watch fob, with the name of the contestant and car neatly engraved on each. The latter was given in the nature of a surprise and was greatly appreciated, as it was not the least expected by either contestant. The committee went a little further in the nature of surprises by presenting each of the contestants who completed the three days' run with an engraved certificate, the only difference being that those awarded to the cars were managed with creditable skill, while the twelve perfect score men are so worded. Each certificate is signed by the committee, which also presented the owner of each official car with one of the gold watch fobs. Those receiving these were W. C. Shanley, George Paddock, Raymond S. Joo, L. T. Wiss, A. H. Whiting and C. F. Boyd. The certificates and fobs for perfect scores went to J. B. Ryall, Matheson touring car; J. W. Mason, Stoddard-Dayton touring car; Richard T. Newton, Stoddard-Dayton runabout; H. J. Koehler, Buick and Corbin runabouts; R. A. Greene, Oldsmobile touring car; Percy H. Johnstone, Grout touring car; F. E. Boland, National touring car; C. H. Peckworth, Knox touring car; C. W. Oathout, Jackson runabout; Charles S. Calvert, Winton touring car, and Henry Setlow, Dragon runabout. The awards were made by Angus Sinclair, president of the club, who reviewed the history of the local organization and the leading part it has taken in New Jersey automobile history.

### Chicago Automobile Club Expands in Its New Home.

CHICAGO, Aug. 5.—At the rate at which the Chicago Automobile Club has grown during the past month, which is the first it has been in occupation of its new quarters, it would look as if the latter would shortly become inadequate, despite the liberal scale on which they were planned. In fact, that the need for room will sooner or later become pressing is already apparent, and with this in mind there will be a revision of the features that are to be installed. For instance, a set of bowling alleys were included in the original plans, but it is doubtful now if they will materialize, the space being added to the grillroom. It is suggested that a swimming pool be installed, though this is but one of the many put forward. As yet the garage facilities of the "inside-the-loop" clubhouse have not yet been tested to their capacity, but the new system of checking adopted has already been responsible for a large increase in the demand. To members the fee for checking for twelve hours or less—that is 7 A.M. to 7 P.M., or over night—is but a quarter, while touring cars are stored at the rate of \$25 a month and runabouts \$15, the schedule of prices for washing and the like being proportionately low.

The latest official club circular gives a list of fifty-two new members, the largest number ever admitted at one time. Charles A. Coey has just resigned as a member of the club's racing board, his reasons being that his position as a competitor in track events made his position as a board member an inconsistent one.

### Nevada's Mining District to Have a Club.

GOLDFIELD, NEV., Aug. 5.—The automobile has been a very important factor in the development of Nevada, and there are now a great many of the machines in constant use. In order to secure improved roads and promote the interests of automobilists generally, Senator T. L. Oddie and Clarence Oddie have raised the sum of \$3,000 for the purpose of organizing an automobile club, which will be known as the Southern Nevada Automobile Association. Active steps are being taken and the club will shortly be in full swing.

### Harrisburgers Arranging for a Labor Day Race Meet.

HARRISBURG, PA., August 5.—Enthusiasm is rampant in this city for a race meet on Labor Day, and the Motor Club of Harrisburg is taking active steps to have the event take place. From the present indications it will be impossible to hold the races on either the Eshenour or the track above the city on the river road, but the scene of activities will shift to the famous Middletown Fair Grounds. During the past few days the talk has centered on the Middletown track, as it is easy of access, contains a grandstand and, the most important point, is in good condition. Autoists who are interested in the pending races think the Middletown track, if it can be secured, will be the real thing, and plans will be made next week to secure the track and make arrangements for the races.

Should the meet be arranged it is likely that the challenge race between H. B. Stillman of Philadelphia, in his Pennsylvania car, and James A. Kline, of York, in his Pullman, would take place. This race is to be for a side purse of \$100, which will be turned over to charity. A Wayne car may also be entered in the race.

### Quaker City Motor Club to Hold Meet.

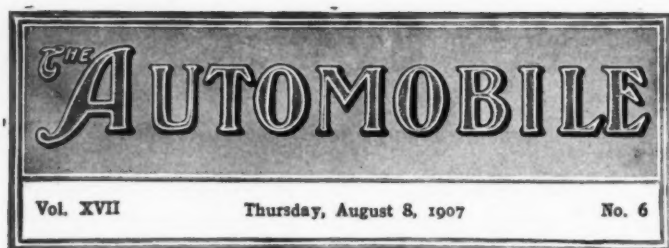
PHILADELPHIA, August 5.—At last week's meeting the Quaker City Motor Club decided to continue its aggressive campaign and promote a monster meet, to be held either on the Point Breeze or Belmont track. Saturday, August 31, was selected, and an effort will be made to bring together all the fastest cars in the country in a trio of events at 25, 50 and 100 miles. There will also be several short-distance races and one for "gentlemen drivers"—that is to say, a strictly amateur event in which owners shall drive their own cars. There is a division of opinion in the minds of the contest committee as to whether Point Breeze or Belmont would furnish the better sport. The former, although more easily reached and therefore more suitable from the "big gate" viewpoint, is handicapped by too-sharp turns and a bad surface. Belmont track, located in the suburbs, has poor transportation facilities, but is wider, a regular oval in shape, and with very easy turns. Both are mile tracks.

### Brockton Autoists Protest Against the New Law.

BROCKTON, MASS., August 5.—The Brockton Automobile Club held a meeting last week and entered a vigorous protest against the new Massachusetts law regarding registration, which went into effect August 1 and requires the payment of an additional fee of \$5 for re-registration. The meeting was the largest one held in a year, and President G. W. R. Hill, in his address, stated that it was time for the 20,000 owners of automobiles in this State to see that their interests were looked after in the future. The club voted to request the Massachusetts State Automobile Association, with which the club is affiliated, to test the constitutionality of the law. It was voted that all members paying the new registration fee do so under protest.

### The Automobile at the Grand Forks County Fair.

GRAND FORKS, N. D., Aug. 5.—That the automobile is entering more and more into the life of the agricultural community is evident from the action taken by the Grand Forks Automobile Club in making arrangements for the cars which will bring visitors to the county fair. Just as the horses have their hitching-posts and watering-troughs, the cars are to have a special parking space, and that a number are expected is apparent from the fact that a plot 120 by 160 feet has been secured inside the grounds. It will be devoted to the use of automobiles alone, and will be in charge of an attendant, who will take care of the cars during the owners' absence.



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### Influence of the Public Demand on Auto Design.

Within the past few years there has grown up what has been aptly termed standard practice in connection with automobile design. But, is it a standard set by the engineering forces of the industry, or one modeled by the man who buys the car. A review of the present status of the American industry and its product tends very strongly to the latter opinion, for, though the designer may have clearly defined ideas of his conception of what the finished car should embody, forces that are constantly at work prove much too strong for him. Nominally, the designer of a car has a free hand concerning its technical creation, but actually he has very little latitude, and his initiative is seldom permitted to go beyond the incorporation of details of his own selection, together with improved methods of construction.

For the rest he must look to the business end for guidance, and it is the car not alone that sells, but that sells without the necessity of making a new convert to its particular system every time one is sold, that the sales department wants. It is not to be inferred from this that all cars of a certain price are alike, though they both form a close approach to a uniform standard of excellence in service, for, given the same materials and tools and the same designs, two factories may turn out a very different product. On the whole, it is hardly necessary to be more than usually discerning to note that, after all, it is the man who buys the car who has been responsible for molding its design along certain lines. In the first instance, a few progressive manufacturers introduced changes of a nature that met with lasting favor. So much so that

other makers found themselves compelled to fall in line in order to place their cars on the same level in a competitive market. And the buyer still continues to want that certain type of machine in ever increasing numbers, from which there has arisen the present uniformity in design that is so noticeable. Probably 80 to 90 per cent. of the American automobiles to-day are the same so far as their essential features are concerned, the remainder embodying some special system. Not that this is to be taken in a derogatory sense nor in favor of those that represent a radically different system, but it illustrates to what an extent public opinion molds the design.



### A Sidelight on the Ever Vital Problem of Ignition.

With the adoption of the custom of providing ignition apparatus in duplicate on such a large number of cars, there has been revived a problem that had only been settled definitely—which, of course, means by general consent—but a short time previous. This is the placing of the spark plug. Extended experience has demonstrated that, for obvious reasons, the best place for this is over the inlet valve. But as two systems of ignition have come to mean two entire sets of equipment that are wholly independent, the question naturally comes to the fore again, for if it is undesirable to have the spark plug anywhere but over the inlet valve, then it follows that both plugs of the two sets should be in that position. Practise up to the present seems to be in favor of locating the second plug either in the center of the cylinder head or over the exhaust valve, and a compromise is effected by making the plug so situated the one called upon solely for starting and emergency use—in short, it is not the running plug.

But why not a twin plug? suggests an English autoist. The temperature existing in the vicinity of the exhaust valve is entirely too high for long-continued satisfactory working, and a central location has not been found to give the same satisfactory service as a plug placed over the inlet, due to the cooling effect of the incoming charge of fresh gas, as well as the fact that the plug is always surrounded by the latter at the time of firing. As at present employed, it is necessary to drill and tap independent holes in different places, so that the expedient of combining the plugs in one, which would be equally simple, would be an advantage from the manufacturing point of view and would also permit of concentrating the wiring to better effect.



### Are American Cars Properly Equipped with Brakes?

So much has been done toward the improvement of the American car where its braking system is concerned that it may seem totally uncalled for to ask such a question as that here brought to light. But can it be answered in the affirmative? The experience of the competitors in the recent A. A. A. tour when traversing the only mountainous part of the route, that through the corner of southwestern Pennsylvania, would most certainly appear to warrant an answer in the negative. The descent of several miles of down-grade, even at the speed which the contestants in that event found themselves compelled to adopt, should not prove too much for the brakes of any car properly equipped.

The query of a correspondent, which is printed elsewhere in this issue, as to why American cars are not equipped with water-cooled brakes is apropos at the moment, as no trouble would have been experienced had they been fitted in this manner. This practise is quite prevalent abroad, and it also leads to a further comparison—that of the amount of effective braking surface allowed for cars of a certain weight. Doubtless the fact that roads are so uniformly excellent on the other side, from which has sprung a custom of running down hill at a very much faster rate of speed than would be considered within the limits of safety here, has had much to do with the extremely liberal provision of braking surface that is to be noted on Continental cars. No brakes can be too good for any car, and, as this country is not lacking in mountainous roads to try them to their utmost, it would seem that there is still room for improvement in this important essential.

## NOT TOO EARLY TO DISCUSS NEXT YEAR'S TOUR.

TRUE it is that the 1908 A. A. A. tour is nearly a year away, but, profiting by the experience of the past, it would appear to be the height of wisdom for the Touring Board of the national organization to begin at once the work of preparation. The annual shows come earlier than ever before, and there should be excellent opportunity to have something definite to discuss during the show fortnight from October 24 to November 27. Now that the recent event can be judged more calmly and dispassionately by all participants, it can be seen that it was a distinct advance over the three previous affairs, and it is plainly apparent that it can be greatly improved in various ways.

THE AUTOMOBILE will be pleased to print the opinions of those who are interested enough to offer suggestions regarding what an ideal tour should be to benefit both the user and the maker of automobiles. Out of the many opinions that may be expressed there should be numerous suggestions of value to the Touring Board, which should plan for next year even though its *personnel* might not remain the same. Experience gained in the Cleveland-Chicago-New York run will be of inestimable help in rule-making for the 1908 "Endurance Tour." Please note that the word "endurance" precedes tour.

### What One Maker Thinks of the Recent and Next Tours.

J. D. Maxwell, vice-president of the Maxwell-Briscoe Motor Company, who saw considerable of the recent tour, expresses himself in this manner:

"To my mind the tour just passed was as severe as it is necessary to make it. The public do not want a test which is calculated to break machines up. What they do want is a contest which approximates actual touring conditions. One thing is certain, and that is that no private owner would ever subject his car to conditions as those which the Gliddenites experienced.

"One glaring defect has manifested itself in the rules, and this undoubtedly will have to be changed before another tour. According to the conditions, no driver of a car could replace any broken part unless he carried that extra part with him. To show how unfairly this works out, I will cite an example of one of our own cars.

"While running along a bad road a projecting stone carried away the truss rod from the rear axle. The cost of replacing this rod would have been but fifty cents, yet under the conditions of the tour and because we had failed to bring along an extra truss rod it was necessary to run without it. The expected followed—the axle sagged and the car had to be withdrawn.

"Now take for an example another car which breaks, for instance, an engine. According to the terms of the contest both cars had to be withdrawn. One of them could have been fixed up with a fifty-cent repair, while the other repair was out of the question, yet both were penalized the same amount. As a matter of fact, the axle on this car was repaired by installing a new truss rod and the car finished as a non-contestant.

"Such little points as these are hard to foresee and it will probably take the experience gained from one or even two more tours to formulate a set of rules that will be entirely fair to all. Personally, I am a great believer in the Glidden tour. It is a credit to the American automobile industry that as many cars finished as did."

### Some More Statistics of the Tour.

As testified by the official examiners, thirteen cars started in the A. A. A. tour without a single extra part, and two others had provided themselves with nothing more than an extra set of spark plugs. Those believing that their regular equipment was sufficient to carry them over 1,600 miles were: Pierce (5), White steamer (3), Thomas Flyer (2), Royal Tourist (2), Packard, Oldsmobile, and Columbia (1 car each).

It is interesting to note that the best records were made by these machines with no reserve parts in their chests, for no fewer

than ten of them finished with perfect scores. No. 32 Oldsmobile had but three points against it, Pierce No. 21 had 90 penalization, one Royal Tourist continued as a non-contestant, one Pierce overturned, and the Columbia had to withdraw. That 80 per cent. of the cars having no reserve parts—the spark plugs can be ignored—should officially finish such a severe contest with but 93 penalization points among them is a remarkable proof of reliability. The honor roll of perfect scorers—touring and runabout, gasoline and steam—comprises 47.6 per cent. with no reserve parts. This should satisfy the most exacting.

Admirers of steam had reason to be proud of the showing made by their favorites, for all three contesting steamers were among the "no-spare-parts men" and all three figured on the honor roll of perfect scorers. In addition, two steamers started and two finished in the run in the service of the press and of a tire firm.

### Concerning "Entertaining" During the Recent Tour.

With possibly a handful of exceptions, those on this year's tour, while appreciating the proffers of entertainment in several of the night stops along the route, were inclined to seek their own enjoyment. Chicago had been particularly eager to have the chance of extending the glad hand to the tourists, but when the opportunity arrived there was something amiss in the heartiness of the greeting—at least that seemed to be the general impression even by those who were specially looked after as a result of old acquaintanceship. One tourist whose usual attitude, it must be confessed, is somewhat pessimistic, commented in this vein after reading an editorial in *Motor Age*:

"We had a good time at the band concert on the night of our arrival, listening to music that wasn't half bad while we bought our own liquid refreshment. The track races the next day were exciting, but hardly worth the dollar we paid to get inside. In the evening, at the Chicago Automobile Club, we did relish the good cigars which Chairman Hower bought and had distributed. Oh, yes! we could buy something to drink. Sunday I didn't go out to that resort where we could hear some more music and again treat ourselves to thirst quencher. Why didn't I go? Well, I couldn't find the automobiles which were to serve as substitutes for our own, which, under the rules, were held in cold storage in the First Regiment Armory. That editorial in the Chicago paper about the lack of hospitality after the finish in New York gives me a weary feeling. But, then, I suppose when some people get to a real city they are a bit timid about venturing very far from their hotels. As for myself, I wanted none of the big town's hospitality except what I could find myself—and I found a sufficiency without any great effort."

### Details of the White vs. Stoddard-Dayton Run-off.

BUFFALO, August 5.—The details of the White vs. Stoddard-Dayton run-off of the Hower trophy tie explains how the gasoline car lost to its steam rival.

When the contestants left Syracuse on Wednesday morning, July 31, the Stoddard-Dayton was suffering from a broken spring, which had been repaired as well as possible without penalization. Fifteen miles from Syracuse the weakened spring snapped, but was patched up without new materials and the car hobbled along to regain lost time. At Batavia the car met the firemen's parade and lost its way trying to avoid this "pageant."

H. K. Sheridan, driving the White runabout, arrived a half hour ahead of time and waited at Main and Eagle streets for the Stoddard-Dayton. Minute after minute passed by; then it came to be a matter of seconds. Secretary Lewis waited for the expiration of the two minutes' grace, and then announced the White car as the winner.

When the Stoddard-Dayton did pull up, limply, as it were, E. L. Leinbach said: "A broken spring and that firemen's parade did it." Secretary Lewis immediately wired to New York City for the Hower trophy to be sent to the White factory.

**BEWARE OF AUTO TRAPS IN FREEHOLD, N. J.**

FREEHOLD, N. J., Aug. 5.—The police of Freehold ran four traps Sunday and are running two every day, and intend to keep it up. They are located at the edges of town, on the roads to Lakewood and the shore, to Long Branch, to Trenton and Matawan and to New Brunswick. "Vanie" Perrine is the chief pump-kin and gathered about \$150 of the "graft" yesterday. Business is so brisk that the sugar barrel and the cracker boxes at the cross-roads general store have been abandoned and the whole "force" is collecting tribute along the highway.

**WARNINGS OF TRAPS CLOSE TO ALBANY, N. Y.**

ALBANY, N. Y., Aug. 6.—Albany automobile owners, under the auspices of the Albany Motor Club, have organized a campaign against the auto traps and the rural grafters. A number of signs have been prepared reading "Speed Trap—Albany Auto Club." These are being placed around the roads, wherever the rural constables and justices have set their traps, to warn touring autoists, and a patrol is maintained by the club of stalwart young men on bicycles or in autos or on foot to keep the signs up and to watch the traps and discover every new one they set. That this work may be carried on, subscriptions are being solicited among the local owners and club members, with the result that in the past ten days \$361 have been subscribed.

**STATE ENGINEER TO CONFER WITH ROAD USERS.**

ALBANY, N. Y., Aug. 6.—State Engineer Skene is charged, by an amendment to the Good Roads law enacted this year, with the duty of making rules for the protection of the State's improved highways.

"Early next month," said State Engineer Skene to-day, "I shall endeavor to get together here in Albany in a sort of convention representatives of the automobile associations, the bicyclists, the road drivers' associations, the supervisors and town officials, so that I may meet with and discuss with them what is advisable and feasible and satisfactory, to all who use the highways, in the way of road rules. I am charged with the duty of formulating such rules by the recent amendment to the Good Roads act, and I am desirous of getting all interested persons together and learning from them what would be the best rules to adopt."

The section of the law now known as Chapter 717, Laws of 1907, which gives him the power to make road rules reads thus:

"The State Engineer is hereby further empowered to make such rules as may from time to time be necessary for the protection of any such highway or section thereof, and any disobedience of such rules shall be punishable by a fine of not less than \$10 and not exceeding \$100, to be recovered by the State Engineer for the benefit of such maintenance fund."

**A. M. C. M. A. SECURES LION'S SHARE OF PALACE.**

About eighty-five per cent. of the main floor space of the Grand Central Palace show has been taken by the American Motor Car Manufacturers' Association and will be allotted to members by a drawing the latter part of August.

A further increase in the rapidly growing membership of the A. M. C. M. A. has been made by the incorporation of the Chadwick Engineering Works, of Philadelphia, makers of the "Great Chadwick Six," and of the Pullman Motor Car Company, of Chicago. The association now comprises 46 makers.

**OLDFIELD SAYS PUBLIC WANTS HIPPODROMES.**

DENVER, COL., Aug. 3.—A Denver daily newspaper prints the following: Like Barnum, Barney Oldfield, the dare-devil automobilist who courts death by every turn of the wheel, declares that the (sporting) public likes to be humbugged. In an oratorical outburst Oldfield says that people pine for fake races and hippodrome. Square races are not so spectacular, he avows, and therefore are not so pleasing to the populace. Harken unto Barney the Bold: "I'll admit you can't run a real honest race any more. I found out early in the game that all these affairs must be on the hippodrome order. For instance, early in my career I went against a Frenchman for ten miles, went in to make the best time I could, and beat him a mile. The crowd was sore, and I found out the only kind of a race the grandstands want is one where the racers hang onto each other's heels and see-saw all the way around. The public doesn't know it, but that's the way the racing game is played now. We've got to do it or we couldn't get the crowds."

**SOCIETY OF AUTO ENGINEERS FLOURISHING.**

The Society of Automobile Engineers, at the recent session held at Buffalo, gave convincing evidence of its activity and value to the industry. The society now contains a hundred members, with forty added during the past two months and indications of many more before the annual meeting to be held in New York City during the automobile shows. The condition of the treasury is excellent. These were the papers read at the Buffalo meeting:

"Some Micro-Structural Considerations," by J. M. Ellsworth and T. J. Fay.

"Pointers on the Equipment of a Hardening Room," by Joseph Schaeffers.

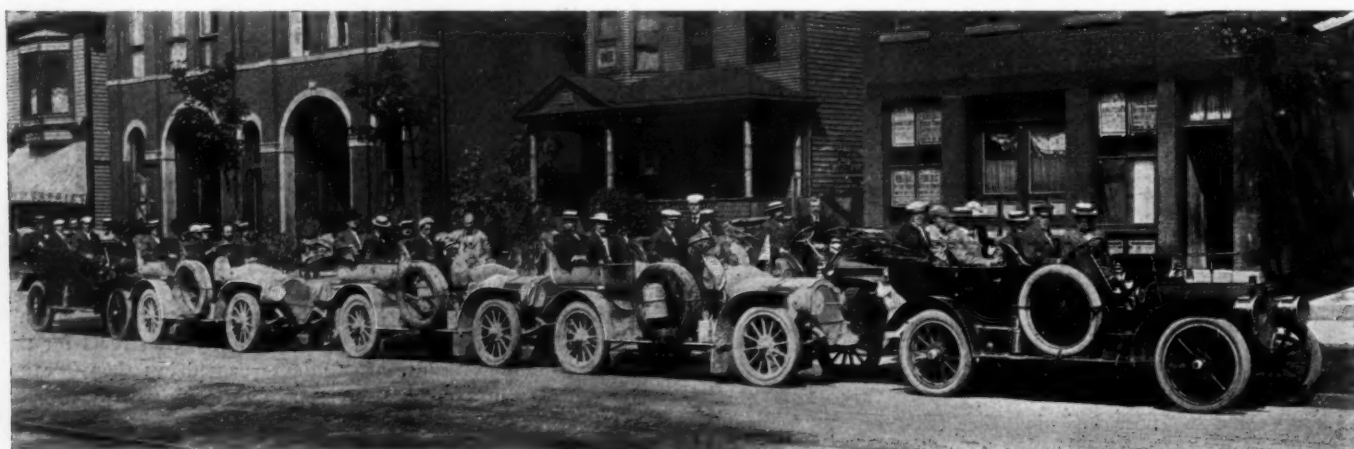
"Motor Vehicle Springs," by John G. Rumley.

"Influence of Acids in Lubricating Oils on Bearings," by Henry Hess.

"On Timing Automobile Races," by A. L. McMurtry.

"The Carbureter and Its Functions," by Charles E. Duryea.

During the Buffalo meeting there were inspections of the Pierce and Thomas plants, and a run to Niagara Falls. The papers read were interesting and prompted the usual amount of discussion.



MEMBERS OF THE MECHANICAL BRANCH OF THE ASSOCIATION OF LICENSED AUTOMOBILE MANUFACTURERS LEAVING E. R. THOMAS MOTOR COMPANY'S PLANT, BUFFALO, FOR A RIDE IN THOMAS FLYERS THROUGH THE PARKS OF THAT CITY.



PRIZE-WINNING WHITE IN BOSTON OLD HOME WEEK PARADE.

### HUB AUTOISTS CELEBRATE OLD HOME WEEK.

BOSTON, Aug. 3.—The automobile features of Boston's Old-Home Week took place on Thursday, and consisted of a parade through the downtown streets followed by gymkhana games on the Common. The events were arranged by a committee of members of the Boston Automobile Dealers' Association, and, for the middle of summer, a very good representation of cars in both parade and games was secured. Prizes were offered by the Old-Home Week committee, and the competition was keen. The parade, which started at noon from the Back Bay, was made up of about 150 cars, with President L. R. Speare, of the Bay State Automobile Association, as chief marshal.

The touring car prize went to C. W. Wilson, who entered a Winton, while the runabout prize was taken by Arthur Adams with his Oldsmobile roadster. The trophy for the best appointed car driven by a woman, with women passengers, was won by Mrs. J. A. Davis, of Amesbury, with her White tourer. Competition for the prize for the best decorated car was very close, for there were a number of handsome machines entered. The judges, however, decided that the award should go to Mrs. J. H. MacAlman, wife of the Columbia branch manager, who entered a large Columbia adorned with beautiful floral decorations. Some of the other finely decorated cars were Mrs. J. S. Hathaway's White runabout, Dr. J. F. Hovestadt's Buick runabout and J. M. Thomas's Welch.

Competition for the most grotesque car was between a White, entered by J. S. Hathaway, of the local branch, and a Columbia, entered by J. H. MacAlman. The White car was occupied by three rustics and was equipped with all sorts of crude devices. The Columbia car contained a party of country constables who had captured a chauffeur and had him tied to the back of the car. The prize was eventually awarded to the White.

The gymkhana sports on the Common included six events, and the contests were watched with much interest by a good-sized crowd of Old-Home Week visitors. G. H. Kimball, with a Corbin, was the most successful, winning the old clothes race, slow race on the high gear and the brake test. C. J. Pendleton, with a Carter car, won the twelve-mile-an-hour race; Guy Green, with an Orient, the obstacle race, and Harry Murch, with a Cadillac, the tilting contest. The committees in charge were as follows: Parade—J. H. MacAlman, chairman; L. R. Speare, F. A. Hinchcliffe, J. S. Hathaway and James Fortescue. The gymkhana committee consisted of K. M. Blake, chairman; George W. McNear, George H. Lowe, S. K. Dingle and A. E. Morrison.

### MANY REGISTER IN NEW YORK DURING JULY.

During the month of July 1,586 automobiles were registered at Albany under the New York State law. Ford headed the list of the new arrivals with 217 cars. Cadillac occupied second position with 91 cars, and Maxwell was third with 88.

### RE-REGISTERING UNDER NEW BAY STATE LAW.

BOSTON, August 5.—The new re-registration law in Massachusetts went into effect August 1, and the Highway Commission is literally swamped with the business of re-registering automobiles at \$5 each and motorcycles at \$2 each. Up to the present time the Commission, with a force of a score of extra clerks, has received applications from about one-fifth of the automobile owners, and applications are arriving at the rate of from 600 to 700 a day. About \$16,000 has already been turned into the State in fees.

Some of the automobilists object strongly to the new law and are paying their fees under protest. They claim that the law is unconstitutional, and there is talk of carrying it to a decision before the Supreme Court. The new law is rather rough, particularly on those who bought machines this spring. When they registered their cars in May or June they paid \$2. Now they are called upon to pay \$5, and the first of the year they will have to pay another \$5.

### FRESH COMPLICATION OF PATENT SITUATION.

GRAND RAPIDS, MICH., Aug. 5.—It looks as if the controversy over priority in the invention of the propeller shaft drive for automobiles which was so thoroughly thrashed out on the other side between French and English litigants a few years ago were to have its counterpart in this country. Homer L. Boyle, better known as an author, claims that his patent Number 470,175, covering a shaft drive for a vehicle propelled by a gas-engine, is being infringed by a number of automobile manufacturers and he has instructed his attorney to take up the matter of royalties with the latter. At the time of the granting of the patent the claimant attempted to utilize it in the construction of a vehicle, but found it impossible to procure a sufficiently light motor. The patent still has two years to run.

### AUTOMOBILE ROW DOES NOT OBSERVE SUNDAY.

It has been called to the attention of New York's chief of police, through the medium of sundry complaints, that the supply dealers along the row are not strict observers of the Sunday closing law. Quite the contrary, most of them are breaking the Sabbath and the law as well by dispensing supplies to cars at their doors just as the law-abiding section of the community is on its way to church. Formal complaint has been made and it is probable some action will be taken by the police. It is said that most of the prominent dealers do not open Sundays and are in favor of the enforcement of the law.



GOVERNOR HANLY OF INDIANA AT CHERRYVALE FRESH AIR FARM.

During the State Encampment near Indianapolis, Governor Hanly expressed a desire to visit the "News" Fresh Air Farm at Cherryvale, and was taken thither with his party in two six-cylinder Premier cars. In the picture with the children are Mrs. Hanly, Mrs. Rogers, her guest, the Governor, and R. A. Eads, sales manager of the Premier Motor Mfg. Company.



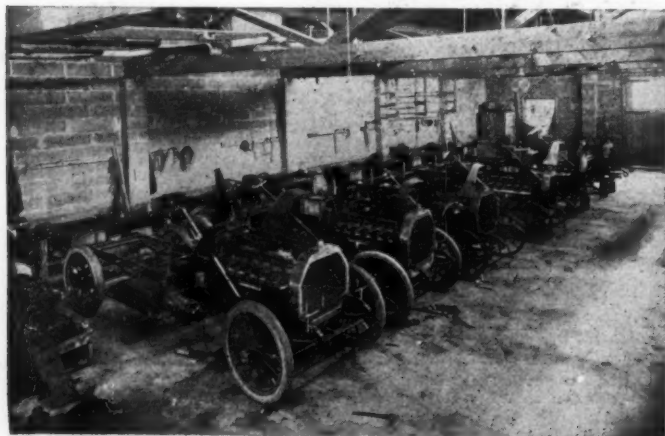
MODEL C. THE LATEST PRODUCT OF THE NORTHERN.

**NEW NORTHERN RUNABOUT FOR 1908.**

One of the first things to strike the familiar observer about the new Northern runabout shown in the accompanying illustration is its utter absence of side levers. At first sight it would appear to conform to the prevailing standard in this respect, but a second look brings this to light. The use of a two-speed planetary gear placed immediately behind the two-cylinder horizontal opposed engine, and which is controlled by the convenient hand lever shown mounted on the steering column, is responsible for this. The power plant is of the standard type that has been specialized by the Northern Motor Car Company for several years past on their light cars, though its rating under the new formula adopted by the Licensed Association of Automobile Manufacturers is 24.2 horsepower instead of 20 horsepower, as formerly claimed by the makers. The cylinder dimensions are 5 1-2-inch bore by 5 1-4-inch stroke. The remaining specifications are the same as the 1907 model C Northern, though the lines of the body have been altered, making it a most attractive looking car, designed to sell at a moderate figure, as it lists at \$1,600.

**BLOMSTROM 1908 MODELS ARE READY.**

DETROIT, MICH., August 5.—The 1908 models of the Blomstrom Mfg. Co., Lieb and Wight streets, Detroit, Mich., are out, the chief change over 1907 being the refinement of many details and the increased piston displacement of the motor, the cylinders of which are now made 4 5-8x4 1-2 inches. The output of Blomstrom "30's" for 1908 is already largely under contract to dealers.



GEARLESS CARS IN PROCESS OF CONSTRUCTION.

A peep into the assembling room of the factory of the Gearless Transmission Company, Rochester, N. Y., shows that there is plenty of work in hand. The company reports a rapidly increasing order list.

**BENDIX COMPANY BUYS TRIUMPH PLANT.**

CHICAGO, August 3.—The Bendix Company, of Chicago, recently organized and capitalized for \$200,000, last week purchased the factory, machinery, and equipment of the Triumph Motor Car Company, at Cragin station, Chicago, and has taken possession of the plant, establishing executive offices there in connection with the manufacturing end of the business. The officers and executive heads of the company are as follows: President, Vincent Bendix; vice-president, Joseph Hagenbuck; secretary, H. Clay Calhoun; superintendent, O. M. Delaunty; engineer and designer, L. P. Sittig; purchasing agent, Fred Patterson. Mr. Bendix, the president, has had an extended experience in the manufacture and sale of automobiles of the buggy type, which is the type of car the Bendix company is manufacturing, having been connected with the Holsman Automobile Company. Mr. Delaunty, superintendent, was formerly with the Holsman Automobile Company in the same capacity, and was previously connected with the manufacturing departments of other large automobile concerns. The 1908 models have been given exhaustive road tests, and shipments of same will commence September 1. With its new factory facilities the company has arranged for an output of about 1,200 cars for next season.



THE THOMAS OF 1901 AND THE THOMAS OF 1907.

Montague Roberts, the well-known Vanderbilt Cup driver, recently discovered at Lakewood, N. J., the first car ever produced by the Thomas factory, in the early part of 1901. The car, which is shown at the left of the picture with Mr. Roberts at the wheel, is still in running order, and was sold July 6, to a Lakewood resident for \$100.

**HOW KNOX WILL BE REORGANIZED.**

SPRINGFIELD, MASS., Aug. 5.—At a meeting of the stockholders of the Knox Automobile Company, in this city, Friday last, the company was formally assigned to a receiver for the benefit of its creditors, as announced by officials of the company a few days ago. It has been authoritatively announced that the plan for an adjustment which will be presented to the creditors within a week or ten days by the receiver, A. N. Mayo, will involve a capitalization of the company's debts, amounting to \$560,000, into 8 per cent. preferred stock, making the total capital stock of the company nearly \$1,000,000.

The plan which will be presented to the creditors is briefly this: The debts of more than half a million dollars will become preferred stock, cumulative at 8 per cent. per annum, and the present stock of the company, valued at \$363,000, will become common stock. The total stock will amount to \$923,000, or nearly treble the old stock. The reason assigned for the company's action, which was voluntary, was under capitalization, and under the new arrangement it is believed that the company will be able to proceed with its profitable business without danger of a recurrence of its present financial embarrassment.

It is also stated authoritatively that the creditors will accept the plan for adjustment as proposed by the receiver.

### ST. LOUIS MOTOR CAR CO. FAILURE.

PEORIA, ILL., August 3.—As the result of a rumor that the St. Louis Motor Car Company at Peoria Heights was disposing of its assets without the consent of its creditors, there was a hurried meeting of some of the largest of the latter, and Saturday morning there was a petition presented to Judge Wright in the United States District Court, praying for the appointment of a receiver. It was granted without opposition and James M. Sholl was duly appointed, giving bonds in the sum of \$20,000. The action which stirred the creditors to life was the shipment to Chicago of a \$3,000 car on Friday and the attempt to send another away the day following, but Jesse French, Jr., in charge of the plant, explained that the cars had been sold and paid for and were simply being delivered.

The total indebtedness of the concern is said to reach \$120,000, while the value of its assets as a going concern will total \$100,000. The petitioning creditors' claims amount to \$64,000, the difference between this sum and the total indebtedness being represented by numerous small accounts, including the pay roll for the past fortnight, amounting to \$2,400.

The creditors who joined in the petition for the appointment of a receiver are as follows: Sholl Bros., \$587.60; National Refining Company, \$554.38; Jesse French, Sr., \$20,000; C. L. French, \$37,000; Olive Street Bank, St. Louis, \$5,500. Jesse French, Sr., is also indebted to other indebtedness of the concern amounting to \$30,000.

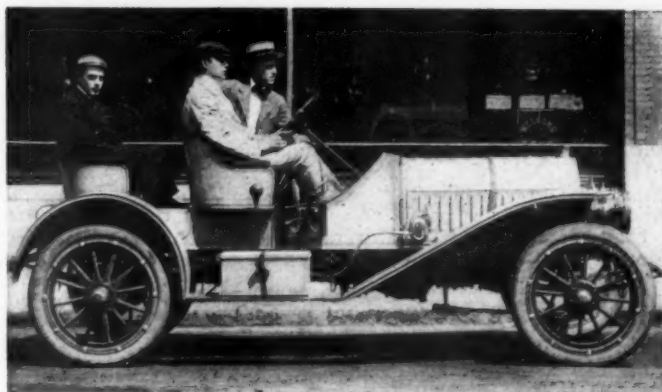
The company has fifty-one automobiles in process of construction for which a ready market can be found at prices ranging from \$2,250 to \$3,000 and has contracts ahead for six months. It is believed that in the hands of the receiver it will be able to pay off all its claims and continue to do a successful business.

### AEROCAR COMPANY MAKES AN ASSIGNMENT.

DETROIT, MICH., Aug. 5.—The Aerocar Company will discontinue, application having been made Saturday last for the appointment of a receiver. It is understood that there have been some differences of opinion among the numerous stockholders, and the capitalization was not sufficient to carry along the organization on the extensive plan attempted by the directors.

### PEUGEOT TOURING CAR WINS PRESS CUP RACE.

TROUVILLE, FRANCE, Aug. 6.—Renaux, driving a Peugeot, won the Press Cup on the Lisieux circuit to-day in 4:36:35, equal to 53.4 miles an hour. Competitors were touring cars having qualified in a four-day endurance test, racing under full touring conditions, with a gasoline allowance limited to one gallon per 14.8 miles. With two thousand troops guarding the course and a perfect organization, the race was one of the best ever held in France. There were no accidents.



THE NEWEST AUTOCAR LOOKS AS THOUGH IT COULD GO SOME

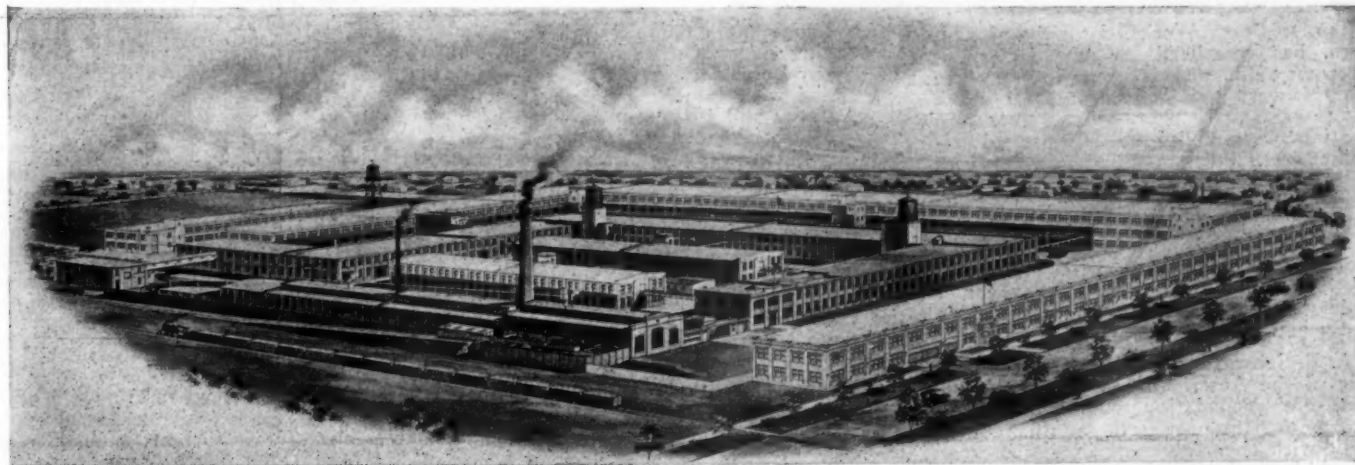
### NEW AUTOCAR MILE-A-MINUTE RUNABOUT.

In bringing out its 35-horsepower mile-a-minute roadster, illustrated by the accompanying photograph, the Autocar Company, Ardmore, Pa., has devoted every effort not alone to embody every possible detail of mechanical improvement appropriate in such a car, but has also paid particular attention to the finish. The latter is a pronounced cerulean-blue, set off with crimson, making a most striking contrast with the quiet hues in which the other cars turned out by this firm are finished, and especially as exemplified by the Autocar's physician's car. The combination in question is the result of considerable study, involving an appreciation of road conditions and wear, as well as the selection of a harmonious color scheme that would at the same time not produce a result wholly lacking in the elements of durability.

### AERONAUTS NOW HAVE MONTHLY ORGAN.

The *American Magazine for Aeronauts*, published at 142 West Sixty-fifth street, New York, is certain to interest the advocates of air traveling. The July number contained some thirty-five pages of text, including technical articles on the aero problem and aeronautical news from various quarters of the globe. The August number, which will be out the coming week, will be even more interesting than the initial issue. Ernest LaRue Jones, the editor, is secretary of the Aero Club of America.

Ballston Spa, N. Y.—West's garage, recently opened here on Front street and Milton avenue, has bestowed Ballston Spa with one of the best automobile centers of this part of the State. The building, which is of brick with litholite trimmings, has a capacity for 100 machines, and is completely fitted up with engine room and current generating plant, machine shop, etc.



PACKARD MOTOR CAR COMPANY FACTORY AS IT STANDS TO-DAY AT DETROIT.—ITS 435,000 SQUARE FEET, INCLUDING THE 160,000 SQUARE FEET OF ADDITIONS, COVERS TEN ACRES.—HERE WILL BE BUILT 1,500 CARS OF THE PACKARD "30" 1908 MODEL.

## BRIEF ITEMS OF NEWS AND TRADE MISCELLANY.

An addition to the manufacturing supply trade has been made by the organization of the H. & T. Mfg. Co., Inc., at Worcester, Mass., with a capital stock of \$30,000. Frederick B. Early is president and Ralph D. Thayer, secretary and treasurer, both of Worcester.

Much credit is due to Ray McNamara, one of the youngest drivers in the recent A. A. A. tour, who showed his ability by successfully driving the Premier pilot car, Number 98, from Cleveland to New York. It was his car that used only one quart of water between Indianapolis and New York and was the same model as the Premier that came through the strenuous 1,600-mile run with a perfect score.

Work was begun recently on the new testing plant which is being built at the plant of the Reo Motor Car Company's plant at Lansing, Mich. The original brick track with its cinder surfacing is being torn up and will give way to a new one of planks, as the ice proved to be troublesome to the testing drivers on the brick track in winter. The new track will be properly banked at the turns and will permit of greater speed as well as freedom from danger.

According to George W. Coffin, of Denver, Col., he is on a trip that makes the A. A. A. tour look like thirty cents, to use the vernacular, and at the time of writing he was 432 miles west of Denver in his Model M Winton. He says: "I am now on the western slope of the Continental Divide and have crossed four mountain ranges varying from 10,000 to 11,000 feet high, and in 700 miles of the roughest travel have not had a bit of trouble, not even a puncture. Mine is the first automobile seen in this section."

At the regular monthly meeting of the board of directors of the Monarch Motor Car Company, Chicago, Ill., held at its offices at Chicago Heights, an addition was made to the official staff. S. M. Paine succeeds J. A. Ward as secretary and treasurer, the former being promoted to the office of vice-president, while T. A. Quinlan, Jr., has been appointed general manager. Rapid progress is being made on the erection of the new machine shop which is under way at Chicago Heights, and the company expects to take possession about September 1.

Turner Brass Works, formerly of Chicago, has completed its new factory at Sycamore, Ill., and is occupying it. The main factory building has a floor space of 40,000 square feet, with power and heating plants additional. Improved machinery has been installed and facilities enlarged and greatly improved. The plant is located on the main line of the Chicago & Great Western Railway and the Galena Division of the Chicago & Northwestern Railway, with sidetracks to the factory. All correspondence and orders should be sent to the main office at Sycamore.

A. E. Schwartz, the foreign representative of the American Motor Car Manufacturers' Association, who has been in Europe for the past eight months, comes back with the statement that next year should be an important one for American automobile manufacturers in the foreign fields. He says there are tremendous

possibilities for the small car trade and that the greatest demand is for cars of from 14 to 24 horsepower. The A. M. C. M. A. representative is also of the opinion that the tenth annual show this fall in Paris will be the biggest in history. American concerns can arrange with him for space before his return, which will be in about four weeks.

Harry Elder, keeper of a tollgate near Baltimore, Md., has secured a large lantern for the purpose of stopping automobilists at night who do not see his toll house and run by. The lantern is of sufficient candlepower to overcome the combined lamps in front of the automobiles, and it is either a case of plunging ahead into the darkness or stopping and paying. When the machine is near the stopping point he lowers the lantern and takes a look at the car's number. If it is a regular who pays his toll in advance, he is allowed to proceed; if not, the lantern is flashed in the driver's eyes and he is compelled to stop.

The Motor Racing Car Association of Maryland is the name of a new association which has been formed in Baltimore for the promotion of automobiling in the State of Maryland. The following are the officers of the association: President, Thomas G. Young; vice-president, Thomas A. Robinson; secretary and treasurer, James G. B. Davy, and Edward A. Cassidy, general manager. The association was formed for the sole purpose of holding races and contests, and the first of these races will be held at the Gentlemen's Driving Park, Labor Day, September 2. The feature event will be a 50-mile race for stripped cars.

### NEW AGENCIES ESTABLISHED.

The Pope-Hartford line, which has heretofore been represented in Philadelphia by the Quaker City Automobile Company, has been transferred to Titman, Leeds & Company, who also handle the Studebaker and Matheson cars.

The Philadelphia representatives of the Mitchell car, the Penn Motor Car Company, have established an Atlantic City branch at 245 North Massachusetts avenue. Manager Walter Cram, of the Philadelphia concern, will also manage the seashore branch.

An important change in Chicago is the taking over of the Stevens-Duryea agency by Louis Geyler, for several years associated with James Levy in handling the Autocar and Lozier lines. The Stevens-Duryea agency will be located at 1532 Michigan avenue.

The Buck Auto, Carriage & Implement Company, Davenport, Ia., has just added the agency for the Oldsmobile to its line, and a carload arrived recently. The firm has already done well with its new line, owing to the reputation enjoyed by the Oldsmobile, and this addition gives it the most complete line of cars and accessories in this part of Iowa.

The Franklin Automobile Company, with branches in Boston, Chicago, and Syracuse, has secured from the H. H. Franklin Mfg. Co., of Syracuse, N. Y., the agency for Franklin cars for New York City territory, which has been held for the past two years by Wyckoff,

Church & Partridge. Salesrooms will be established at Broadway, Amsterdam avenue and Seventy-third street, in the Severn building, about September 1.

### PERSONAL TRADE MENTION.

Le Roy Pelletier, the energetic manager of the Ford Motor Company, of Detroit, was in New York City last week. His observations in the matter of the Selden suit developments found considerable space in the daily newspapers.

John S. Gorham, formerly connected with the Baker electric agency and with the Orlando F. Weber Company in Chicago, has been appointed sales manager of the electric branch of the Chicago sales department of the Columbus Buggy Company, at 1409 Michigan avenue.

A. M. Robbins, well known as a result of his energetic handling of the New York City branch of the Aerocar Company and recently selected as its Eastern sales manager, will not remain at liberty very long as a result of the Aerocar failure. Mr. Robbins is already considering several offers of agency managements.

E. E. McMaster has become western sales manager of the Continental Caoutchouc Company of America, with headquarters at Detroit, Mich. His territory will cover the Middle West. Until recently Mr. McMasters was Detroit manager of the Firestone Tire and Rubber Company, and has been connected with pneumatic tire interests over ten years.

Paul G. Niehoff, who has recently accepted the position of manager of J. P. Beck & Co.'s automobile salesroom and garage, at Saginaw, Mich., states that he was very much surprised to note the great number of fine cars in use in that section of the country. J. P. Beck & Co. are agents for the Rambler and Maxwell lines in their territory, and carry a full line of sundries.

George H. Strout, who recently resigned as sales manager of the Electric Vehicle Company, Hartford, Conn., will join the forces of the Apperson Bros. Automobile Company, of Kokomo, Ind., August 15. The position of sales manager has been created for Mr. Strout, and he will have charge of the selling of the product in addition to supervising the company's various branch houses, which will be increased in number to keep pace with an increased output for 1908. This will include the placing of an entirely new model on the market.

### NEW TRADE PUBLICATIONS.

Descriptive of the automobile fittings manufactured by the Rands Manufacturing Company, Detroit, Mich., the firm's catalogue includes illustrations of tops, with samples of material employed, as well as wind shields and such metal fittings as lamp brackets, tire holders, etc.

The Witherbee instruction book, issued by the Witherbee Igniter Company, 541 West Forty-third street, New York, might find a place with advantage in the pocket of every automobilist, for it contains a quantity of useful information on the care of storage batteries, their installation and recharging, as well as useful hints on remedies for ignition difficulties.